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ADDRESS.

THE INTERNATIONAL SCIENTIFIC LANGUAGE.

The Annual Address read before the Association of American Medical Editors, May 7, 1895.

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CHICAGO.

GENTLEMEN OF THE ASSOCIATION:—As I look around me to-day, and see the distinguished membership, I can only say that he who would interest this audience, or inject into our annual meeting a thought out of the common run, must have either extraordinary ability or remarkably good luck. I shall therefore only attempt to discuss a question which has been more or less prominent and with which all are more or less familiar.

All are not born lexicographers like our brother Dunglison, nor do they achieve lexicography like our brother Foster, or our Vice-President Gould, and as for having it thrust upon them—why, that depends on the enterprise of our friends the publishers, and the same may be said of philologists. Most medical editors are more concerned with the simple proposition, that in all cases the "nominative case shall govern the verb" in the articles they publish, than in that deeply interesting philologic problem of whether the Chinese and North American, or the Semitic, Indo-European and Turanian languages were first to follow the hieroglyphs.

The truth is that the progress of science has demonstrated the great advantage—nay, the necessity—for an easier means of communication between the scientific men of the world, than is now found.

Although at some of our International Medical Congresses the number of official languages have been reduced to three, viz: English, French and German, yet even that limitation was not narrow enough to bring all together, for comparatively few are able to understand more than two spoken languages. It is granted that it may be done, and that here and there are brilliant linguists in our profession, who not only understand and speak two, but four or five, like our Surgeon-General Sternberg of the Army, or Gihon of the Navy, or the laryngologist Braun of Trieste, who seems equally familiar with five languages. This admission of possibility does not imply that it is likely that any considerable number of scientific men will ever set themselves to work to memorize the immense vocabulary that is necessary to accomplish such a feat, and there can be no question but one's time might be employed to better advantage if we can only agree upon what particular language we shall adopt.

Unfortunately, there are so many side issues. The old Adam in men, which makes them selfish, and which selfishness is so often mistaken for patriotism, makes each nation so tenacious, so absolutely certain that each has the very best language that can by any possibility be constructed, that they are but little nearer coming together on the point than they were at the time of the confusion of tongues at the Tower of Babel—and the seeming impossibility of agreement led to the construction of an alleged language called *Volapük* which, up to this time, has been spoken by nobody and only written by doctrinaires. The Volapük is a language that to most men is at once so difficult and forbidding, that it has made little or no progress since first invented by Herr Schleyer in 1879. But when we reflect that it has taken centuries to create the existing languages, we see that the propagandists of Volapük have more to contend against than intrinsic ugliness, lack of harmony or difficulty of acquirement.

This inherent slowness necessarily dampens our personal interest, for no one can take a very deep interest in that very remote posterity that may speak Volapük and enjoy it. Naturally, then, we turn to the question of whether we shall use a living or a "dead" language. The objection to the use of a living language is mainly that it is difficult to secure agreement, although the diplomatists long ago settled the matter by making French the universal language of diplomacy. The fate of nations and their international relations are too important to be trifled with, and we see that with few exceptions all diplomatic conventions hold their proceedings in the French language.

Dr. Achille Rose in this country, and several medical authors in Europe favor Greek. The Greek language has constantly undergone changes from its origin. As a population has always remained in Greece, it is a mistake to consider Greek as a "dead" language. The idea of change is essential to our idea of life; from the seed to the plant in the vegetable world, from the egg to the animal in the animal world, and in language a constant change, as restless, as varying as the waves of the sea. This change in the Greek is well shown in the cuts I show you here. Plate 1, p. 1066, is the fac simile of the first page of the chapter of Hippocrates' "De Morbis," as published by Chouër in Geneva in 1657, and plate 2 is the chapter of Aretæus of Cappadocia, "De Causis et Signis Acutorum Morborum," published at Leyden, 1730, and plate 3 is from the recent work of Georgios A. Kostomoire, published at Athens, 1887.

This last work is on "The Ophthalmology and Otology of the Ancient Greeks, from the Most Ancient Times Down to that of Hippocrates." One would suppose on general principles, that Hippocrates was ancient enough for all ordinary purposes, but Kostomoire has shown us something of the immense riches of medical literature anterior to Hippocrates. It is as well to remove Greek from the list of dead languages, because the Greek language has had a continuous existence from the days of Homer. That

ΙΠΠΟΚΡΑΤΟΥΣ
ΠΕΡΙ ΝΟΥΣΩΝ
ΒΙΒΛΙΟΝ ΠΡΩΤΟΝ.

HIPPOCRATIS
DE MORBIS,
LIBER PRIMVS.

QVi de morborum curatione cum scitè interrogâre, tum ad quæsita respondere volet, & commodè obiecta refutare, hæc secum reputare conuenit. Primùm quidem ex quibus morbi omnibus hominibus oriuntur. Deinde verò, qui morbi cùm necessarias causas habeât, aut longi sunt, aut breues, aut lethales, aut minimè lethales, num pars aliqua corporis mutila reddatur, nécne. Et qui vbi exorti sunt, eventa habent dubia, aut mala, aut bona, & ex quibus in quosnam transitiones fiant, quæq; Medicis in ægrorum curatione prosperè succedunt, & quæ ægrotantibus in morbis mala aut bona contingunt, quæq; intempestiuè dicúntur aut fiunt à Medico erga ægrum, aut ab ægro erga Medicum, quæ etiam in arte exactè fiunt aut dicuntur, & quæ in ea recta, vel quæ non recta, quodq; eius principiú, vel finis, vel medium, aut aliud quid ex his, quòd in ea rectè se habere, vel nõ habere demonstretur, & quæ parua, quæ magna, quæq; copiosa & pauca. Quodq; totum in ea vnum est, & omnia quicquid vnum. Et quæ effici posse constat cùm intelligere, tum dicere, & si opus est, neq; nosse, neq; dicere, neq; facere. Et quicquid in ea promptitudinem habet, aut non habet, & quicquid opportunum, & inopportuni. Quibusq; aliis artibus similis sit & quibus nihil simile. Corposq; quodnam calidum, aut frigidum, aut siccum, aut humidum, & quodnam robustum aut debile, aut densum, aut rarum. Et quæ ex multis pauca fiúr, aut in peius, aut melius vertunt. Quodq; honestè vel turpiter, vel tardè, vel citò, vel rectè, vel non rectè, & quodnam malum malo succedere necesse est. Quæ animo secum reputantem in oratione obseruare oportet, & in quo quis aut dicendo, aut vestigando, aut respondendo, ab his aberret, an quæ multa sunt, pauca, & quæ fieri non possunt, ea fieri posse asserat, & quicquid aliud dicendo peccarit, hoc modo obseruando, contraria oratione insectari. Morbi igitur omnes oriuntur partim quidem ex his quæ in corpore insunt, pituita & bile, partim verò ex his quæ extra obueniunt, laboribus & vulneribus, quin & à calido supra modum calefaciente, & frigido supra modum refrigerante, & sicco plus æquo resiccante, & humido etiam plus æquo humectante.

Σ αὶ πρὸς ἰήσιος ἤδη ἐρωτᾶν πὶ ὀρθῶς, ἢ ἐρωτᾶν ἃ ἀποκρίνασ ἢ αὖ λέγειν ὀρθῶς, σκοπεῖν μέλλ ἐκ τῶν δεδ. πρῶτον μὲ, ἀφ' ὧν αἱ νοῦσοι γίνοντ πάσοις τοῖσιν ἀνθρώποισιν. ἔπειτα γόνασα αὖ διαγνῶσαι ἢ ποσαμῆ, ὡς οὐδενὶ λόγῳ), καὶ ἢ μάκρες, ἢ βραχέα ἢ θανάσιμα, ἢ μὴ θανατώμα. πῶμπρεσί τι τῶ σώματος ἠπεδ, ἢ μὴ μπρεσί. ἢ ὀκόσα ἐστὶν ἐν ἡμῖν), καὶ ἐκ ἃ καὶ ἀπ' αὐτῶν γίνοται, ἢ ἀγαθά. ἢ ἀφ' ὁκοίων νοσημάτων, ἐφ' ὁκοῖα μεταπίπτει. ἢ ὁκόσα ἰήσιμα πίπτοντα πιέσνοι & ἐν τοῖ κακοῖσιν τῶν κακῶν ἀδύνατοι ἐμ. ἢ ὁκόσα ἀγαθὰ ἢ κακὰ & νοσέοντες τὸ τῶν νοσίων πάρεσιν. ἢ ὁκόσα ἀγαθὰ ἢ κακὰ & ἰητροὶ ἢ πασοῖ). καὶ τὸ ἰητρὸν πρὸς τ νοσέοντα, ἢ καὶ τ νοσέοντος πρὸς τ ἰητρόν. ἢ ὁκόσα ἀκριβῶς πασοῖ ἐστὶ τέχνη ἢ λέγ), ἢ ἀπορθοῦσι τὸ αὐτὸ, ἢ μὴ ὀρθοῦ. ἢ ὅ, τι αὐτῆς ἀρχὴ, ἢ πλῆθός, ἢ μέσον, ἢ ἄλλο τι ἐν ταύτῃσι, ἢ ᾗ ἐν ἀρθῶς ἔχει τὸ αὐτῇ ἐστί), ἢ μὴ ἔχ). & τὰ σύμπαντα ἢ τὰ μεγάλα. ἢ τὰ πολλὰ ἢ τὰ ὀλίγα. ἢ ὅ, τι ἀπαρτὶ ἔχει τὸ αὐτῇ ἐν. ἢ πᾶσι ἢ ᾗ. ἢ ὅ τι & ἀνύσαι ποῆσαι τι ἢ ἐπιτῆ. καὶ ἐξίδην, μᾶλλ ποῆσαι, μᾶλλ ἐπιτῆ, μᾶλλ ποῆσαι. καὶ ὅ, τι ἀχρεῖον τὸ αὐτ τ. καὶ ὅ, τι ἀχρεῖον. καὶ ἢ τι χρήσι, καὶ ἢ, τι ἀχρεῖον. καὶ τὰ τιχόντα τῆ ἄλλων ἐστὶ τ ἰσχνὰ, ἢ οἷσι ἔοικε ἰσχνὰ εἶναι. ἢ τῶ σώματος, ὅ, τι θερμὸν ἢ ψυχρὸν, ἢ ξηρὸν, ἢ ὑγρόν. καὶ ὅ, τι ἰσχυρὸν ἢ ἀδυνές, ἢ πυκνὸν, ἢ ἀραιὸν. καὶ οὐχ & τὰ πολλὰ ὀλίγα ἔχ, ἢ ὅσα ἐστὶ κάκιον, ἢ ὅσα ἐστὶ ἄμεινον. καὶ ὅ, τι κακλὸς ἢ αἰσχρὸς, ἢ βέλτιος ἢ ξανθὸς, ἢ ὀρθῶς ἢ μὴ ὀρθῶς. ἢ ὅ, τι καλὸν ἐστὶ καὶ ἀγαθὸν, καὶ ἐν τοῖσι λόγοισιν, ὅ, τι αὖ δὲ ἐς τάδε ἁμάρτοιμ ἢ λέγων, ἢ ἐρωτᾶν, ἢ ἀποκρινόμενος. ἢ ἐκ πολλὰ ἐόντα σύμπαντα ἢ ἐν ἀδυνάτα ἔοντα, δύναται φῆναι. πῶ, ἢ αὖ ἄλλο ἁμάρτοιμ λέγων, ταῦτα φυλάσσοντα χρὴ ἐπιτηδεύειν τὸν τῆ ἀληθείᾳ. αἱ μὲν οὖν νοῦσοι γίνοντ πάσοις, ἢ μὲν ἐν τῷ σώματι ἐόντων, ἐκ τε χολῆς ἢ φλέγματος. ἢ ἔξωθεν, ἐκ τε πόνων & τραυμάτ. ἀλλὰ ἢ τὸ θερμοῦ & ὑπερθερμαίνοντος, καὶ τὸ ψυχροῦ & ὑπερψύχοντος. & τὸ ξηροῦ, καὶ ὑπερξηραίνοντος. καὶ τὸ ὑγροῦ καὶ ὑπερυγραίνοντος. καὶ

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ΑΡΕΤΑΙΟΥ ΚΑΠΠΑΔΟΚΟΥ

ΠΕΡΙ ΑΙΤΙΩΝ ΚΑΙ ΣΗΜΕΙΩΝ

ΟΞΕΩΝ ΠΑΘΩΝ

ΒΙΒΛΙΟΝ Α.

Ἡ ἀρχὴ λείπει.

ΚΕΦΑΛΗ Ε.

Περὶ παροξυσμοῦ Φιλιππικῶν.

ARETAEI CAPPADOCIS

DE CAUSIS ET SIGNIS

ACUTORUM MORBORUM

LIBER PRIMUS.

Principium deficit.

CAPUT QUINTUM.

'De Comitialis morbi acceſſione.

A * ἀμβλύτητες, ἴλιγγοι, τενόντων [a] βάρεα, [b] φλεβῶν ἐν τῷ τραχήλῳ πληρώσιες καὶ διατάσιες, ναυτίη καὶ πολλὰ μὲν ἐπὶ σιτίοις, οὐχ ἥκιστα δὲ ἐπὶ ὀλίγῃ ἀσιτίῃσι, καὶ [d] βλῆχρη, ἢ [c] φλέγμα ἐμέεται συχνόν· δοκιμάζειν δὲ χρὴ ἀπὸ τούτων ἐπὶ σμικροῖσι ἐδέσμασι· φυσώδεες, ὑπερμόροι, ἀσυχόδερμα. πάσι μὲν οὖν δύσπνοια. ἢν δὲ πλησιον [e] ἐόντος ἢ τὸ παροξυσμοῦ, κύκλῳ μαρμαρυγαὶ περὶ τὴς [g] ὄψιος προφυρέων ἢ μελάνων, ἢ πάντων ὁμοῦ συμμεμιγμένων, ὡς δοκέειν [h] ἢ ἐν ἀραιῷ πεπυδῶσι ἶριν. ἦχοι ὦτων, βαρυθυμίη, ὀργίλοι, πικρόχολοι παραλόγως. κατέπτυσαν γὰρ πᾶς ἀπὸ προφάσιος ἐξ αὐθυμίης μετρέξιτεροι δὲ ῥεύμασι ποικιλοῖς ἀπιέες ἐνιδόντες, ἢ τροχῷ δινευμένῳ, ἢ [i] βιμέσιοι ἐλισσομένῃ· ἄλλοτε δὲ ὀσφρῆς βαρίων ὀσμῶν [k] καπβαλέ, ὥσπερ [l] γαγατεω λίθου· πῖσαι μὲν οὖν ἐν τῇ κεφαλῇ τὸ κακὸν

B * hebetudines, vertigines, tendonum gravitates, venarum colli repletiones & diſtenſiones: nauſea frequentius quidem a cibis, non minimè tamen & ab inedia, puſilla quædam nauſea ſequitur, & uberior pituitæ fit vomitus: paucis aſſumptis cibis faſtidiunt, & cruđi ſunt, flatibus replentur, præcordia elata habent. hæc ſanè perpetuò comitantur. quum vero acceſſio appropinquat, [2]ſplendores quidam purpurei, aut nigri, aut omnes unà permixti ob oculos in orbem verſantur, ac diſcurrunt, ut in cœlo iris prætenta eſſe videatur: aures ſonant, fœdum odorem ſentiunt, iracundi fiunt, biles præter rationem accenditur. [3]quibuſdam igitur concidendi cauſa, angor animi fuit: aliqui intentè fluminis deorſum, aut totam quæ circumvolvitur, aut turbinem, qui in orbem agitur, conſpicati: alios autem rerum graveolentia, ut gagatis [4]lapis odoratus, proſtravit: his

A utique

[a] Βαρία *Heniſch.* & Φλεβῶν τῶν in τῷ. *Petit.* rep. in MS. [b] Ἀν. *Heniſch.* [c] Βλεγκεῖ. *Gonpyl.* rep. in MS. [d] Βλίγμα *Heniſch.* [e] Ἰδιον f. ἰδίων ἔδιοι δὲ ἰδίως *Heniſch.* rep. in MS. ιους πλησίον δίος. αἰῶνες δὲ ἰδίως. *Gonpyl.* rep. in MS. πλησίον δίος· ἢ. ſi prope ſit metus acceſſionis: h. e. ſi acceſſio inſtat, imminet. *Petit* rep. in MS. [g] Ὀψεως. *Heniſch.* [h] Ἐν τῷ ὁμοιῷ *Heniſch.* [i] Βόιοι. *Heniſch.* rep. in MS.

[k] Καπβαλέ. *Heniſch.* rep. in MS. [l] τῷ γαγάτῃ. *Heniſch.*

[2] De Acceſſione Comitialium juxta Plinium ſplendemendi. [3] Circuli ignei, ut Cælius Aurel. habet *L.* 1. tard. paſſ. Cap. 4. *Petit.* [4] Quidam igitur levi de cauſa, utpote ob animi angorem, ceciderunt. *Heniſch.* Lapidis. *Heniſch.*

PLATE 2.

ΠΕΡΙ
ΟΦΘΑΛΜΟΛΟΓΙΑΣ ΚΑΙ ΩΤΟΛΟΓΙΑΣ
ΤΩΝ ΑΡΧΑΙΩΝ ΕΛΛΗΝΩΝ

Α.

ΠΩΣ Η ΝΥΝ ΟΦΘΑΛΜΟΛΟΓΙΑ ΚΑΙ ΩΤΟΛΟΓΙΑ ΠΑΡΑ ΤΟΙΣ ΑΡΧΑΙΟΙΣ ΛΕΓΕΤΑΙ ΚΑΙ ΠΩΣ Ο ΟΦΘΑΛΜΟΛΟΓΟΣ ΚΑΙ ΩΤΟΛΟΓΟΣ.

Περὶ τῆς τῶν ἀρχαίων Ἑλλήνων ὀφθαλμολογίας καὶ ὠτολογίας συγγράψαι ἐπιχειρήσας, εὔκαιρον ἡγοῦμαι εἰπεῖν, πῶς ἡ νῦν ὀφθαλμολογία καὶ ὠτολογία λεγομένη τοῖς ἀρχαίοις ὠνόμαστο καὶ πῶς ὁ ὀφθαλμολόγος καὶ ὠτολόγος.

Καὶ ἐν μὲν τῇ Ἱπποκρατείῳ συλλογῇ 2,152 *Περὶ ὄψιος* ἐπιγέγραπται τὸ περὶ ὀφθαλικῶν παθῶν βιβλίον· ὄψις γὰρ παρ' Ἱπποκράτει ὁτὲ μὲν ὀφθαλμὸν ὡς ἐνταῦθα, ὁτὲ δὲ τὴν ὅρασιν, ἄλλοτε τὸν κερατοειδῆ καὶ τὴν ἰρίδα καὶ ἄλλοτε τὴν κόρην σημαίνει. Ἔν τινι δὲ τῆς Φλωρεντίας χειρογράφῳ τὸ αὐτὸ βιβλίον ἐπιγέγραπται *Τοῦ αὐτοῦ περὶ ὄψιος λόγος κε'*. Τοῦτο δ' ἀπόσπασμα εἶναι νομίζεται τοῦ περὶ ὀφθαλμῶν βιβλίου, τοῦ ἐν τῷ *Περὶ παθῶν* μνημονευομένου, ὃ τῷ Πολύβῳ ἀποδίδοται 4,214· « Ταῦτα μὲν ὅσα ἀπὸ τῆς κεφαλῆς » φύεται νουσήματα, *πλὴν ὀφθαλμῶν*· ταῦτα δὲ ἰδίως γεγράφεται». Ἀλλ' ἐκ τῆς λέξεως τοῦ χωρίου τούτου τοῦ Πολύβου εἰκάσειεν ἄν τις, ὅτι ἡ Πολύβου ὀφθαλμολογία οὐκ ἐπεγράφετο *περὶ ὄψιος*, ἀλλὰ *περὶ ὀφθαλμῶν ἢ περὶ νοσημάτων ὀφθαλμῶν* ἢ περὶ *παθῶν ὀφθαλμῶν*. Οἱ δὲ μετέπειτα ὧδέ πως τὴν ὀφαλμολογίαν αὐτῶν ἐπιγράφουσιν· οἷον, Γαληνὸς μὲν ἐν Εἰσαγωγῇ ἢ ἰατρῷ ιστ'. 14,767· *Περὶ τῶν ἐν ὀφθαλμοῖς συνισταμένων παθῶν*. Αἴτιος δ' ἐν ἀρχῇ τοῦ Ζ' καὶ Ἀλέξανδρος Τραλλιανὸς ἐν τῷ *Περὶ θεραπείας ὀφθαλμῶν Β'*. 11,3

CAPITOLO VI.

PRESSIONE ATMOSFERICA.

§ 1.

La pressione atmosferica è uno degli elementi più importanti nella costituzione del clima, epperò ha un grande significato fisiologico. Scoperto il barometro, si potette constatare che in ragione noi ci eleviamo nell' aria avvertiamo un abbassamento nella colonna barometrica, esattamente proporzionato al peso degli strati d'aria sottostanti. Di fatto si son potute osservare le differenze della pressione, alle quali sono sottoposti tutti i corpi situati alla superficie del globo, ed in ispecie il peso totale che il corpo umano sopporta, sotto la pressione di una colonna d' aria equivalente a 761^{mm}, che è il massimo, tenendo conto dell'altezza normale del barometro al piano del mare. Considerando la mobilità della grande massa aerea, e le continue vicende meteoriche cui la medesima va soggetta, si sarebbe indotto a credere alla facile mutabilità della pressione atmosferica. Epperò, dice Lombard[1], esiste per ciascuna località un' altezza normale del barometro, e le oscillazioni della colonna mercuriale sono di due ordini differenti: le une si presentano sotto forma periodica, e si riproducono in certe ore del giorno, in certi mesi o stagioni, ed in certe circostanze di altezza e di latitudine; altre al contrario, comunque si mostrino anche con una certa periodicità in certe circostanze, di cui faremo parola, sono pertanto essenzialmente irregolari, e molto più transitorie, essendo sotto la dipendenza immediata dei venti e della umidità atmosferica. Intanto è mestieri si conosca che, tranne le grandi differenze che si osservano nella colonna barometrica per le altezze, o nel caso di intense correnti di venti, o di terremoti, o di tempeste, le modificazioni della pressione atmosferica, le quali non sorpassino pochi millimetri, non esercitano che una debole influenza sulla nostra economia.

1°) Nello scopo di avere una media esatta dell' altezza barometrica normale si possono tener presente certe ore, le quali rappresentano le

ORIBASII MEDICINALIVM COLLECTORVM,

AD IMPERATOREM IVLIANVM CAES. AVG.

LIBER PRIMVS,

Ioanne Baptista Rasario medico, Nouariensi, interprete.

PITOMAS, quas tu olim Diue Iuliane Cæsar mihi conficiendas mandaueras, iampridem, cum in Gallia citeriore essemus, ad finem, quemadmodum tu voluisti, perduximus: quas quidem ex ijs solis confeceram, quæ Galenus conscripsisset. cumq; tu eas laudauisses, alterum mihi laborem adiunxisti: vt perquisitis omnibus quę medici præstantissimi maxime opportuna dixissent, & quæcunque ad medicinæ finem pertinerent, unum in uolumen redigerem. id quod ego pro uirili parte me prompto animo facturum decreui: cum existimem hæc collecta fore utilia ijs in quorum manus incident, vt statim, quid semper ijs, qui auxilio indigeant, utile sit, comperiant. Nunc vero cum superuacaneum & omnino ineptum putem eadem sæpius adscribere, & quæ ab optimis medicis, & quæ ab ijs, qui non ita diligenter res tractauerunt, scripta fuerint: ea solum colligam, quæ nobis reliquerunt ij, qui cæteris præstiterunt. sed nihil omittam eorum, quæ Galenus dixerit: siquidem ex ijs, qui eas dem res pertractarunt, ipse & uia ac ratione, & distinctione cæteris omnibus antecellit, ac principia & sententias Hippocratis imitatur.

T. LUCRETII CARI DE RERUM NATURA.

LIBER SECUNDUS.

Suave, mari magno turbantibus æquora uentis,
E terra magnum alterius spectare laborem.
Non quia uexari quemquam iucunda uoluptas,
Sed, quibus ipse malis careas, quia cernere suaue est.
Suauе etiam belli certamina magnarum
Per campos instructa tua sine parte pericli:
Sed nihil dulcius est, bene quam munita tenere
Edita doctrina sapientum templa serena:
Despicere unde queas alios, passimque uidere
Errare, atque uiam palantes quærere uitæ.

LUCRECE. DE LA NATURE DES CHOSES.

LIVRE SECOND.

IL est doux lors que l'on est sur la terre ferme, de voir la mer agitée par les vents, exercer sa fureur sur des mal-heureux: ce n'est pas que l'infortune d'autruy donne du plaisir; c'est parce qu'il est agreable de se voir à l'abry du malheur, de la même maniére que la veuë d'un combat furieux, plait à ceux qui n'en sont que les spectateurs, sans avoir part au péril: Mais il n'y a rien de plus charmant, que d'estre admis dans ces Temples élevez des Sages, dont la doctrine rend l'esprit tranquile & serain: C'est du haut de ces Temples que vous regardez les mortels dans une

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there have been many changes, that it is still changing, is positive proof that it is alive and takes note of the changes and mutations brought about by science and the flight of time.

Dr. Rose, whose enthusiasm for the Greek language seems stimulated by the romantic history of that interesting people, seems to think that we should adopt modern Greek because of that history. The reason is not a valid one; the only real question before the scientific world is: What language can we adopt as

that one which will require the least expenditure of time and energy, consistent with accurate transmission of ideas? The question of history has nothing to do with it. We are to consider the actual need and the best means of supplying it. Shall we return to Latin? Here there is no change, and for nearly one thousand seven hundred years that was the scientific language of the world. Less than two centuries have elapsed since Latin ceased to be the common language of science. It was abandoned simply because it was inelastic; it failed to accommodate itself to the new inventions and discoveries which created a new world to be named, and myriads of objects quite unknown to the classic Roman. The

wyth a caulstyke of capitell, whan the mattier is aboute the skynne. Than afterwarde lette the place be mundifyed wyth Unguentum egyptiacum, mengled wyth Unguentum apostolorum, or wyth oure pouder of mercurye, or wyth a trocisque of minium. And than lette the place be purified, wyth hony of roses, and wyth a mundificatyue of Smallage, and incarned wyth oure pouder incarnatyue, the descryption whereof is after thys sorte. ℞. of Aloes Hepatyke. ʒ.iii. of myrrhe, of Frankencense, of Sarrocolle. aña. ʒ.i. mengle theym. And yf you adde of cleare Terebentyne. ʒ.v. of honye of roses strayned. ʒ.ii. it shall be verye profitable. Lette the place be sealed vp, and cicatrised wyth oure pouder cicatrizatyue, and wyth water of Alume, and wyth vnguentum of minium, whych bene wryttē in our antidotarye, wherunto resorte.

Pouderin carnatiue

¶ The.viii. treatise speaketh of the apostemes of the hyppes, thyghes, legges. And of the Apostemes of the lyuer, and scrophules and fugilles whych chaunce vnder the arme holes.

¶ The fyrste chapt. treateth of apostemes of the hyppes hote, and colde, sanioule and not sanioule.

Apostemes of the flankes. ꝛc

OF Apostemes of these partes, some are engēdred in the outewarde partes as in the stones the flankes, the fundamente, of whyche wee haue spoken. Wee wyll here speake of an Apostеme that is engendred in the inner partes. The curation of thys apostеme differeth not frō the cōmune cure of other Apostemes, whereof we haue spoken, in the former chappters. Wherefore if it be a colde apostеme, for the resolution, and mollificatiō, and other intentions, ye shal procede as in the cure of colde apostemes. And likewise if it be hote & come to maturatiō, let it be opened, mūdified, incarned, and sigilled. ꝛc. as is declared in the former chapters.

Neuertheles thys is to be noted, þ it requireth a discrete chirurgien, whā there is mattyer or corruption in the place or not, bycause of the thyckнes of the muscles, and of the flesh. Wherfore good William Placentine in his tyme resistynge chirurgiens, that said that thys Apostеme was not sanious obtayned greate worshippe, and profite. For he made incision in the presence of chirurgiens, and found great quantitie of mattier or corruption in the apostеme. Thus endeth. ꝛc.

¶ The.ix. chapter of hote and cold apostemes of þ knees, thyghes, and legges.

Apostemes of the thyghes, knees, & legges.

THe Apostemes of the thyghes, knees, & legges, haue no differēce (touchinge the curation) from apostemes of the shoulders, elbowe, & of the bone of the arme called aditorij. Wherfore for all the intentions of the cure of the same, ye shall resort to the former chapiters. Neuertheles they differre in one thyng, that is that the pacientes muste not exercise them selues in gopnge & cōmynge, as much as shall be possible. Thus. ꝛc.

¶ The thyrde chap. of the swellynge of the knee.

There

modern Italian, while still spoken best in the soft Tuscan sound, and is based upon ancestral Latin, differs as widely as Spanish or French from the original tongue. I present you a page from Oribasius, which is from the famous press of Aldus, of Venice, printed in 1560, showing the Latin page of the sixteenth century, plate 4, and a section from Fazio's hygiene, printed in Italian, at Naples in 1887, plate 5. The wide departure from the Latin could scarcely be made more plain, and it is quite clear that even the Italian would scarcely find the Latin language easier to him than to the Spaniard, the Portuguese or the French.

Indeed, we may easily see that there is a close correspondence between the French of the seventeenth century and the Latin where, as in this page of Lucretius, printed in Paris in 1692, we have side by side the Latin and the French, plate 6. Nor is the divergence of modern French very great from the Latin. We may exclude English from consideration on account of its extreme difficulty. It is not strange that it should be difficult when we reflect from what varied roots the English language is derived. The Teutonic, Gothic, Celtic and French contribute to its common stock, while its scientific language is mainly of Greek and Latin parentage, and this conglomerate, more rich in words than any other, except perhaps the monosyllabic tongues of the Orient, are more varied and flexible than any other. But the scientific foreigner can only acquire our language with extreme difficulty, and he rarely if ever learns to speak it without a betraying accent. All arguments considered, I have come to the conclusion that the French language is that most easily acquired by other nations, and the one that can be used for the purposes of an international scientific language with least friction.

As already mentioned, it is now the language of diplomacy and polite society throughout the world. Nearly every medical man who learns a language in addition to his own, learns French. This is absolutely true of all Latin nations. At the International Medical Congress of Berlin, I never met a physician from Mexico or Central or South America who was unable to speak French, and I attended a dinner at Prof. Martin's, where nearly every country was represented, and the language spoken was French, notwithstanding our host was German and we were in the great German capital. In Roumania and Turkey the medical publications are largely in French, and in Buenos Ayres and Brazil medical pamphlets are usually published in French even if published in the native Spanish or Portuguese, and in many cases such documents are duplicated.

It seems to me that laying aside all questions of sentiment, either of romance or patriotism, and keeping steadily to the utilitarian question confronting us, we must admit that we may meet more people on a common level by the use of the French language in all international gatherings, than by the use of any other known tongue. The transition from Latin to French is so easy that almost anybody who has conquered the rudiments of Latin, may acquire a translating knowledge of French in a very short time.

I quite agree with Dr. Rose in the statement that in learning a language we must learn it by ear as well as by the eye, and instances are numerous where one with good translating knowledge of a language, has no knowledge whatever of its sound. For this reason, if there were no other, the study should be carried on conversationally as well as by reading the written or printed word. This applies with as much force to French as to any existing language.

The changes in the French language in the last three hundred years are much fewer than in the English language of the same period. If you examine one of the English black letter scientific books, such for instance as this section from an English translation of John de Vigo, printed in 1550, plate 7, you will doubtless have to look twice to realize that it is English, as it was written; but the French of the same period, while naturally changing somewhat, remains so nearly the same that it may be read without difficulty.

I conclude, gentlemen of the ASSOCIATION, not with a certainty that the question is settled, but with the firm conviction that you are increasing the scholar class in our profession and that you will be able to unite on some language which we may all choose as our second language, to be used at our international gatherings to the glory and advancement of medicine throughout the world.

LECTURES.

OPENING LECTURE OF THE COURSE ON MILITARY HYGIENE.

BY MAJOR CHARLES SMART.
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Hygeia was the Godess of Health, the daughter of Æsculapius. Hygiene is the science of Health. It was called by Prof. Parkes the art of preserving health; but since he wrote the introduction to his classical work hygiene has been developed by study and observation into a science, and its art or the practical application of its laws has recieved the name of sanitation. We are here to study the science and its practical applications, not only that we may protect the soldiers of the United States from the attacks of disease, but that we may preserve their physical powers at their maximum of vigor.

The duties of an army surgeon are various. They require him to be a many-sided specialist. When a soldier becomes sick the army medical officer has to treat him as his attending physician; when accidents or injuries occur he has to be prepared for the emergency as operative surgeon, but at all times he has to watch over the health and strength of the command as its sanitary or health officer. In this last respect his duties do not differ materially from those of the health commissioner of a municipality. The health officer of a city has to guard the community against the introduction of infectious diseases by a system of quarantine or of careful inspection. If any infectious disease, such as smallpox, scarlet fever, measles, diphtheria, cholera, or yellow fever, should make its appearance in the city, nothwithstanding his precautions, he must endeavor to prevent its spread by isolation, disinfection and other special means, meanwhile determining, if possible, its derivation and the measures to be adopted to prevent the occurrence of other cases from the same source. He has likewise to guard the city against any outbreak of disease from local insanitary conditions, or in other words, to see that all nuisances are abated. He has to look after the wholesomeness of meat, milk and vegetables, and the condition as to purity or adulteration of various articles of food. He has to keep guard over the water supply, whether general from the city reservoir or local from wells or springs, and to pro-

vide for the satisfactory removal of offal, garbage, waste water and night soil. Lastly he is responsible for the accuracy of the vital statistics of the community. To enable him to perform these various duties he has the assistance of a staff of expert employes, including sanitary, police and plumbing inspectors, bacteriologists, analysts and statisticians.

The army medical officer has similar responsibilities, but he has no such staff; he must be prepared to undertake by himself any or all of these duties as the occasion may require. Hence the necessity on his part for a more intimate knowledge of the methods of practical hygiene than is usually conveyed in the curriculum of a medical college.

It is only in recent years that the status of the army medical officer as a health officer has been officially recognized. It is true that in the early years of the republic he was charged by the Regulations to do everything in his power to eradicate contagion; but this meant only contagion in the hospitals, the contagion of hospital gangrene and of the deadly typhus fever, and gave him no power over the general well being of the troops. The Regulations of 1828 provided that when troops were in quarters the surgeon should from time to time inspect the rooms and kitchens, the quality and preparation of the food, and the location and condition of the vaults, reporting defects and suggesting improvements to the commanding officer, who was thereupon directed to take such action as seemed to him necessary and proper. The surgeons did this honestly and faithfully, inspecting and recommending until they became tired of making recommendations that were never carried into effect, for the commanding officers of those days seldom considered it needful or proper to take any action, but instead often regarded the medical officer as officious and meddlesome, and his report and recommendations as reflections on their administration. For many years the Regulation was, therefore, a dead letter; but in progress of time the popularization of sanitary science became such that military commanders began to have a better appreciation of sanitary recommendations, and as a result we have now vastly improved conditions and lessened rates of sickness and mortality. At the present time most military officers are as interested in the sanitary condition of their men as are the medical officers themselves.

I have told you that the duties of the military health officer do not differ materially from those of the civilian officer; they are both based on the same principles. It may be well, therefore, to outline briefly some of the salient features in the history of hygiene that you may the better appreciate the value of sanitation in improving the condition of the human race. Ordinarily medical men in dealing with medical history drop back to Hippocrates, the Father of Medicine, who lived in the fifth century before Christ; but hygiene was known and hygienic rules followed long before his time. Among the Greeks the very name *hygeia* suggests its existence as far back as the mythical time of Homer's Iliad; while about the same time in the wilderness of southern Syria the leader of the Israelites elaborated a system of sanitary rules for the protection of the nation which he had formed out of the Egyptian bondsmen. In doing this, however, it is probable that he gathered up into one system of sanitary law all the knowledge of the subject then possessed by the priests and learned men of the Egyptians. He insisted on cleanliness, the isolation of the sick and care in the selection of articles of diet; and in carrying into effect these rules, which was scrupulously done by the Jews in after ages, they oftentimes protected themselves from epidemics of disease which scourged their Christian neighbors.

It is, however, to Hippocrates that the credit is usually given of having been the first teacher of hygiene. He had established a sanitarium and college of medicine at the springs on the Island of Kos in the Aegean Sea; and his name and reputation were known throughout the whole of the civilized world, that is throughout the Grecian peninsula and in the settlements on the shores of the Mediterranean. It is related that Pericles sent for him to come and save the city when the plague was devastating Athens and threatening the extinction of the people. He went, and found magnificent dwellings and luxurious interiors, but the city as a whole saturated with filth. He began his work of sanitation by draining and cleaning up, and endeavored to protect against seizure by keeping large bonfires, to which aromatics had been added, burning in the streets; thus recognizing, not an infection which he was destroying, but an unusual and harmful constitution of the atmosphere which he was endeavoring to alter. This epidemic constitution of the atmosphere, in explanation of the existence of epidemic disease, has survived almost to the present day, lingering longest in connection with influenza, but the progress of bacteriology may be said to have now laid it to rest. On his return to Kos he wrote his book on "Air, Water and Places," which is regarded as the first work written on the subject of hygiene.

Rome received her instruction in medicine from Greek physicans; but she appears to have elaborated her own system of sanitation, for the great sewer of the Tarquins, which to-day helps to carry off the waste water of the city, was built 140 years before Hippocrates was born. It opens into the Tiber by an arch twelve feet high, surrounded by three tiers of voussoirs. Three hundred years later the Appian Way was commenced, and the first water from a distance was brought into the city by the Censor Appius Claudius Cæcus. In another 300 years, or in the time of Augustus, the aqueducts bringing water from the Sabine hills were 270 miles long, 30 miles crossing the Campagna on lofty arches. The Campagna at that time was covered with villas and country seats; malaria was unknown, for drainage and cultivation kept it in good sanitary condition. Every care was taken of the health of the people and of the sanitation of the imperial city. Later, hygiene degenerated into luxury, which has left a record in the ruins of the public baths. The colonnade surrounding the Thermæ of Caracallus was a mile long, and enclosed trees, flowers, lawns, and a stadium for the exercise recommended to be taken after the bath; but if one were lazy the halls, theatre, museum, library, etc., within the building afforded other means of enjoyment. At the present day the remains of this structure are, after the Colosseum, the grandest ruins in Rome.

In progress of time the civilization of the Roman Empire was swept away by the inroads of the northern barbarians. Alaric of the Visigoths captured Rome early in the fifth century, and Genseric toward the middle of that century completed its destruction. The dark ages descended upon Europe, and nearly a

thousand years elapsed before the dawn of our modern civilization began to illumine the mental atmosphere of the Aryan race.

Two diseases which affected humanity from the earliest periods of recorded history had much influence in stimulating a practical interest in preventive medicine. To leprosy we owe our present hospital systems, and to the plague our system of quarantine and maritime sanitation.

Leprosy was common among the Israelites throughout their history. They brought the disease with them from Egypt, and from the Egyptians also Moses no doubt obtained his rules for diagnosis and for the segregation of the lepers without the camp, as given in Chapter XII of Leviticus. General Lew Wallace, in his novel, "Ben Hur," gives a realistic picture of the life of those affected with leprosy at the beginning of the Christian era. Leprosy was introduced into Greece and Rome in the first century by troops returning from Syria, and thence it spread slowly, almost imperceptibly, to the colonies in France, Spain and Britain. A thousand years later it was epidemic in Europe, and continued so for many hundred years; even royalty was not exempt from its infection. Every town of any size had its hospitals for the isolation of the lepers. There were 95 in England and no less than 2,000 in France, and the laws regulating them and their inmates were strictly enforced. These undoubtedly contributed much to the suppression of the disease. A few survivals of its existence continue in Europe, notably in Norway. Its prevalence continues in Asia and many other parts of the world, particularly in the West Indies; in the Hawaiian Islands 2 per cent. of the natives are said to be affected.

The nature of the plagues of ancient history is uncertain. Besides that which we now recognize as plague, they probably included all fulminant febrile infections. We do not know the nature of the plague of Athens in the time of Pericles, nor of that which devastated Rome thirty years earlier and which, according to Livy, destroyed most of the slaves, one-half of the citizens, many senators, priests, tribunes, and two successive consuls. Bubonic plague was was described as a foreign disease by the earlier Roman writers. Europe did not become invaded until the reign of Justinian A. D. 542, when it entered Constantinople from Asia Minor. After this there were repeated reintroductions or epidemics developed from sporadic cases. A great wave started at Genoa in 1346, and continued with periodic exacerbations for twenty years, during which 25,000,000 people were destroyed. At this time contagion was noted as a factor in its spread, and Boccacio tells us of the efforts made to preserve Florence by excluding the disease. Sanitary cordons, the equivalent of what in our day we call "shot-gun quarantines," were drawn around healthy places to preserve them, and around infected places to prevent the spread of the pestilence. Venice at this time was the commercial metropolis of the world. Her vessels brought home the products of the East, and occasionally among them cases of the oriental plague. In 1423 she built a lazaretto for infected sailors, but not until 1484 were laws enacted for the detention of vessels from infected ports prior to permitting the admission of the crew, passengers or cargo. The city of London suffered, as did all the other European cities. Sporadic cases were noted every year, and occasionally the disease spread with epidemic violence. In 1665 the city had been comparatively exempt for seventeen years; but in the summer of this year 70,000 persons died out of a population of less than half a million, two-thirds of whom had fled into the country. The great fire occurred next year; and the subsequent freedom from plague was attributed by many to this purification by fire and the subsequent rebuilding of the city on better sanitary plans; but about the same time the disease began to subside all over Europe. Continental cities ascribed their protection to strict quarantine, but England did not institute quarantine until 1720, when a deadly epidemic in Marseilles threatened the whole of Europe. The progress of civilization, of which sanitation is a part, has banished plague, and it is now found only in the country south of the Caspian Sea and in certain of the seaports in China. It ravaged Canton and Hong Kong in 1894.

The discovery of the protective value of vaccination was the first grand step made by preventive medicine after the modern revival of learning. On May 14, 1796, Dr. Edward Jenner of Berkley, England, vaccinated a boy from the sore on a milkmaid's finger, and on July 1, following inoculated him with smallpox. The protective influence proved by this experiment took the mortal sting from a disease which for ages had more than decimated the human race. It has been estimated that prior to this discovery one-sixth of those born fell victims to smallpox, and of those who survived many were deaf, blind and disfigured. The smallpox pitted face, so common in the early days of this century, is now a rarity among civilized nations.

The study of typhus fever in prisons, ships, camps, and the crowded slums of large cities, demonstrated the existence of a contagion or pathogenic influence which appeared to be called into being under conditions of over-crowding and insufficiency of fresh air, and led to an appreciation of the value of air space and ventilation as sanitary factors in dwellings. The advantages derived from the practical application of this knowledge were the suppression of typhus fever and hospital gangrene, and the lessened prevalence of consumption and of those cachectic conditions that originate in ochlesis or crowd-poisoning.

Its further study, leading to the distinction between typhoid and typhus fevers, had also important sanitary bearings, for it ultimately showed that the germ of the former disease was to be found in the excreta. For a time exhalations from these were regarded as containing the infective material. The sewers of a city containing typhoid fever patients were, in the language of Dr. William Budd, "a continuation of the diseased intestines." Sewer air had, therefore, to be kept from our houses, and to this effort to protect us from typhoid exhalations, we are indebted for many improvements in sewerage systems and house plumbing. Later, when the propagation of the disease by water was discovered, the attention of practical sanitarians became directed to the protection and purification of water supplies, an agitation which is still in progress.

I have said that the plague gave us our quarantines for protection against exotic diseases. It is, however, to cholera and yellow fever that we owe the improved quarantine methods of the present day. Cholera made its first progress over Europe in 1830; and in its periodic visitations since that time it has always come from India, and generally by way

of the Red Sea. The annual pilgrimage to Mecca brought cholera as well as pilgrims to the Holy City of the Mohammedans, and pilgrims from Europe carried the infection with them on their homeward journey. International conferences were called at various times to consider the best system of protection. The most important of these was that of Constantinople in 1866, which established a quarantine under international auspices in the Red Sea to intercept infected vessels and prevent Mecca from becoming a great distributing center. This did much to restrain the advance of the disease and to relieve the local quarantines in the the Mediterranean. Later conferences, as at Vienna in 1874 and at Rome in 1885, did much to lessen the cruelties of a prolonged quarantine by recognizing the English view—that importation of the germ was of less material consequence than local filth and insanitary conditions in the invaded seaport. Local sanitation then became the order of the day, with medical inspection of incoming vessels to determine the presence or absence of disease, giving free pratique if no case had occurred on the ship and if seven days had elapsed since leaving the port of departure; but if the ship was infected provision was made for the removal of her sick, the retention under observation of those who apparently were well, and the disinfection of the vessel and her cargo.

Yellow fever gave us a similar quarantine or sanitary service in the United States. The belief that yellow fever was indigenous in this country rendered our quarantines valueless for many years. Since the War of the Rebellion, however, the disease has been regarded as an exotic, and since the widespread epidemic of 1878–79 it has been excluded from the country by an inspection service to determine the condition of the vessel, the detention of infected persons, and the disinfection of infected ships.

The registration of vital statistics and the institution of boards of health were two most important agencies in the modern progress of practical hygiene. The record of births, marriages and deaths was made at first for legal purposes only. It was not until 1839, when Dr. William Farr prepared the first annual report of the Registrar General of England, that the value of vital statistics in directing the work of sanitation became demonstrated. The mortality returns were the most important in this respect. They showed the excessive number of deaths among children under five years of age; the high death rate in cities as compared with the rural districts, and in certain parts of a city as compared with certain other parts of it; the high death rate among persons engaged in certain trades, and the high rates occasioned at times by certain diseases. All these facts led to observation and study for their explanation, and these again suggested hygienic measures to remedy the insanitary conditions that were discovered. England has the most efficient system of registration. The local registrars report weekly to the headquarters in London, and from the office of the Registrar General are issued weekly, monthly, quarterly and annual reports. The Registrars General in Edinburgh and Dublin publish similar reports for Scotland and Ireland respectively. In the United States many cities and a few of the States have excellent systems, but taken as a whole this country is far behind in the registration of vital statistics. Not so, however, the U. S. Army; for the Army medical officer reports all cases of sickness as well as deaths, and this it is which gives so much value to the statistical reports of the Surgeon General. An excess of sickness over the average of the Army at any one post can be detected immediately, and the character of the reported cases generally gives some indication of the nature of the necessary preventive measures.

Boards of health, or local sanitary authorities, were a result of the inquiry into the causes of excessive death rates as developed by the registration returns. Their duty was to lessen such rates by preventing or removing the insanitary conditions that gave rise to disease or promoted its spread. In this country boards were first appointed in our large and growing cities. Much good was accomplished by them within their jurisdiction; but it speedily became evident that for efficient work there must be such a coöperation among the local officials as could only be effected by the intervention of the State. After a time State boards of health began to be organized by various legislatures; and it is to be observed that much of this work of organization was carried out by medical men who had served during the War of the Rebellion. Their duties and experience as Army medical officers had impressed upon them the value of preventive measures and each, having influence in his own State, became an important agent in promoting the progress of public sanitation. Derby in Massachusetts, Rauch in Illinois, Hewett in Minnesota, Baker in Michigan, and many other pioneers of State medicine in this country were volunteer medical officers during the war.

Many of the annual reports of municipal boards contain valuable papers in the form of reports of committees on the local water supply, drainage, sewerage, etc., and on the measures adopted for the suppression of epidemic diseases. The reports of the State boards also are mines of sanitary information.

But you will readily understand that just as there are subjects of sanitary import that exceed the jurisdiction of a municipality and require the intervention of State authority, so there are subjects so extensive as to reach beyond the lines of a particular State, although of the greatest importance to the well being of the people of that State. One which is calling for federal legislation at the present time is the prevention of the pollution of rivers and other natural sources of water supply, the people of one State who drink the water having no authority over the sewage disposal of cities in an adjoining State by which it is contaminated. To preserve the people of the whole country from insanitary conditions a perfect coöperation is needful among State and local authorities. A good understanding prevails among medical and sanitary authorities, but these are too often powerless to accomplish the end in view. Municipal authorities and State legislation view the sanitary proposition from the financial standpoint, and they are not likely to authorize the expenditure of funds for a special and costly method of sewage disposal that the water supply of some other State or city may be protected.

The protection of the coast line against the importation of cholera, yellow fever, smallpox, etc., is also a subject on which there must be either a perfect cooperation among local authorities or a federal supervision, for an efficient quarantine at one seaport is of no value to a country if the disease effects a landing through the inefficiency of the service at another port. There are also many questions concerning protection from indigenous diseases, such as consumption and

typhoid fever, which are of interest to all the States, and which could be studied to better advantage under national auspices than by the individual and uncoördinated efforts of the several States.

For these reasons most of the medical and sanitary men of this country are anxious to see established a National Board of Health. In this respect the United States is behind the age. The English have a central health authority called the Local Government Board, which comes, when necessary, to the assistance of the local health authorities. Germany has its Imperial Board, which has become famous by the work of Dr. Robert Koch in its laboratory. Our Mexican neighbors have a Superior Board of Health for coördinating the work of the State boards, and even Japan, the latest national adjunct to modern civilization, has a Central Board of Health.

In 1871 a number of sanitarians met for the purpose of organizing an American Public Health Association. One of the objects of this Association was to secure legislation on behalf of the public welfare, and particularly to obtain federal recognition of the importance of the subject by the establishment of a National Board of Health. But its efforts in this direction were neutralized by an argument based on the unconstitutionality of such a board. In the cession of certain of their powers by the States to the Federel Government for the general protection, the police powers of the States were not included. The right of the local authorities to be supreme in such matters prevented action by the general Government. A few years afterward, however, the disastrous epidemic of yellow fever which devastated the South in 1878, so overcame the State's rights doctrine in connection with health matters that the strongest supporters of a National Board of Health were the members of Congress from the Southern States. A bill establishing a board was passed in 1879, and this Board did excellent service in protecting the country from imported disease, and in promoting sanitary work in the various States. Under the impetus given to sanitation during the few years of its existence boards of health were organized in most of the States, and these latter fostered the organization of local boards and kept up close official relations with them, so that nothing of a threatening character could occur in any part of the State without an immediate reference to the State Board for advice or assistance.

The National Board was ultimately destroyed by the continued operation of the influences which opposed its organization. The Marine-Hospital Service now conducts the duties of maritime quarantine on the lines established by the National Board of Health, but this service does not fulfil the purposes of a federal board in questions of internal sanitation. Medical men and sanitarians are therefore as earnest at the present time as they were in 1871 in their efforts to secure national health legislation; and as the President in his message to Congress last year indicated its necessity, there seems some prospect that this country may soon have a central or federal sanitary bureau or even a Department of Health, as urged by the AMERICAN MEDICAL ASSOCIATION.

I have given you this general sketch of the progress of hygiene and sanitation that you may be better able to appreciate the relations of military to public hygiene; for the Army medical officer in time of peace has usually a civilian settlement attached to his station for which he must act as health officer, and in time of war the sanitary interests of large sections of the country may devolve upon him.

At our next meeting I shall bring you into more immediate contact with the military branch of the general subject of hygiene and sanitation.

REMARKS ON CLINICAL CASES.

I. PHLEBITIS AND PERIOSTITIS FOLLOWING TYPHOID FEVER; II. ACUTE BRIGHT'S DISEASE; III. POST-HEMIPLEGIC TUMOR.

Lecture delivered at the Pennsylvania Hospital, Nov. 9, 1895. Reported stenographically for the JOURNAL.

BY J. M. DACOSTA, M.D., LL.D.

PHILADELPHIA.

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Gentlemen:—You will be interested, I think, in seeing the progress of some of the cases that were before you at our last clinic; a series of cases illustrating sequelæ, of unusual occurrence in our day, of typhoid fever. This young man was the case of femoral phlebitis; phlegmatia dolens it was formerly called, or milk-leg, which an accurate pathology has taught us to now regard as phlebitis. You will recall that I directed your attention to the course which this ran; how it began in the right leg; how that leg became tense, painful and swollen; how the swelling gradually subsided, except along the course of the femoral vein. Now, it had hardly subsided before we began to notice swelling and tenderness in the calf of the other leg. We next observed some swelling over the glands in the groin and tenderness over the left femoral vein; the most marked features, however, being the tenderness in the muscles of the calf. Recognizing this as a phlebitis in this limb, we began the treatment as before, by elevating the limb, making applications of witch-hazel distillate, and administering the tincture of the chlorid of iron, internally. I am happy to say that under this treatment, the inflammatory condition has subsided; the swelling and pain, and the tenderness in the calf, which at the beginning were such marked symptoms, have disappeared. There is now no longer any tenderness along the femoral vein and the swelling of the glands has also gone. In fact, the man is perfectly well except that he must be cautioned against standing much upon this leg for the present, or using it much in walking, for a certain amount of edema will result from using the limb too soon.

The interesting fact in this case was the early and valuable diagnostic sign that we obtained from the tenderness in the calf, which indeed was the first manifestation of the phlebitic process. The patient is now convalescent; but he may continue the tincture of iron three times a day, with a good diet.

Having disposed of that case, we can briefly dispose of the case of periostitis following typhoid fever.

Here, gentlemen, is the case, which I told you was regarded as one of periostitis of the tibia following typhoid fever. There was much swelling over the front of the tibia extending along this bone; but tenderness upon pressure and pain were the most marked features. There was slight elevation of the bodily temperature, which no longer is present. This morning there is no tenderness, and the swelling of the covering of the bone has subsided, although the patient still complains of some soreness of the skin where the blister was applied. He was, indeed, treated with blisters over the site of tenderness and he

was kept at rest in bed, with the foot slightly elevated. He is well, and nothing more need be done for him.

ACUTE BRIGHT'S DISEASE OF THE KIDNEYS.

The next case is one of acute nephritis, one of a kind we see frequently in practice.

The patient is a sailor, 21 years of age, who has been much exposed at sea. He was brought here with the statement that he had had some form of obscure fever at sea, of which the exact history can not be now ascertained. Following this fever, he had an eruption of some character upon his legs and face. We also know nothing about this eruption, although from his occupation we may have our surmises as to its specific character, yet we can know nothing about it. The eruption upon the legs may have been caused by some local application of the nature of which we are not informed; it may have been some preparation of coal-oil. He says that he did use some application and that it was followed by this eruption besides a good deal of inflammation. There was desquamation after he came into the hospital. This was the only history we could obtain of the case.

When he was admitted his temperature was 102° in the evening and a slight decline took place next morning. The fever temperature gradually subsided, and this morning it is 100.6.° When he came in, his face was very much swollen. As you perceive, it is still somewhat swollen; but nothing like it was on admission. His legs were swollen also; they are less swollen now. You see this curious eruption upon the legs. When my attention was first called to it, I was asked if it was smallpox in its declining stage; but it has none of the characteristics of smallpox. I believe that it was due to some irritant, like coal-oil; some application which was made while at sea. Of course, as already hinted, as he is a sailor we might assume that it is due to syphilis; but as it is limited to the legs, this is against that view. Moreover, he positively denies anything of the kind, or that infection exists. Upon thinking over the case, it occurred to me that it possibly might be due to some strange blood eruption, like the eruption of purpura; but the fact that it is found only on one part of the body, the legs, and that it is papular instead of being petechial, decided against this also. I then concluded that while the exciting cause was an irritating application, the subsequent course of the eruption was due to the course of the disease. What disease? Well, from the general appearance of the man, his puffy face and evident anemia, I concluded that it was a case of Bright's disease. The urinary examination confirmed this view. Here is the statement: Urine reddish, with a flocculent sediment, acid in reaction, specific gravity 1022; albumin present in large amount, no sugar. Some finely granular and epithelial casts and much débris, urates, etc. The daily quantity when he came in was twenty ounces, therefore scanty. Yesterday he passed forty-seven ounces.

With this large amount of albumin and scanty urine, with swollen face and fever, there was no doubt that we had here a case of acute nephritis, one of the forms of Bright's disease. If you ask, What did it follow? we can not here be certain; we simply take it as a case of acute Bright's disease, with inflammation in the tubular portion of the kidney and exudation and swelling interfering to a considerable extent with the function of the kidneys and causing scanty albuminous urine. This condition may follow cold and exposure; it may follow acute rheumatism. And especially is it seen in persons who are rheumatic and are then exposed to cold and dampness. It frequently follows scarlet fever, and the thought may occur to you that this is a case of acute neprhitis following scarlet fever. It is true he had fever on board ship, and an eruption, the character of which we do not know, nor can we ascertain the nature of the feverish attack. Gentlemen, we will have to leave this as a matter of doubt; but I rather incline to think that it was not scarlet fever. The man himself states that he had no fever; but we know he must have had some because he came in with a fever. But that is a matter of no great significance, the main point is the condition in which we find him at present. Let us inquire into the future course of the disease and whether it will recur. We will also take up the question of treatment.

Acute Bright's disease is an inflammation of the cortical portion of the kidneys; they become swollen up, congestion and exudation occurs, serum and blood corpuscles enter the tubules and appear in the urine. Epithelial, hyaline and granular casts and blood elements are detected with the microscope. Under favorable circumstances and with good management, these all disappear. Nine out of ten cases recover perfectly; the tenth case may not recover, that is to say, the condition may pass into a chronic nephritis and the large white kidney may result. Recovery is therefore the rule in acute nephritis under treatment; but this presupposes care and treatment and does not take into account a possible occurrence—there is always a danger of these inflamed kidneys suspending action and producing uremia and convulsions. Therefore, while the prognosis is, on the whole, favorable, it is so only under proper treatment. If this can be obtained the prospects are that the albumin will slowly disappear from the urine and the kidneys slowly resume their functions. But these patients, in the future, after fresh exposure, will be likely to show a small amount of albumin in the urine. So much for the prognosis. The diagnosis is an easy one: The swelling of the face and limbs; the presence of albumin in the urine; the small quantity of urine; the presence of tube-casts—all these make up a clear and distinct diagnosis of acute nephritis. In what stage of the disease was this man when he reached us? Was he still in the acute stage, or had it passed? It had passed; the disease had reached its height before he came in. Why do I say this? Because there was no blood in the urine. During the first week or longer there is blood in the urine and blood-casts, casts with blood cells on them, with very many leucocytes. You recall the fact that this man's urine had no blood and no mention is made of leucocytes. We must conclude then that the most acute stage had passed before he came into the hospital.

Now as regards the treatment: The most important points are to act upon the skin and the bowels and to keep the kidneys flushed, by diaphoretics, cathartics and diuretics. You must use derivative treatment, while putting the patient upon the blandest diet, chiefly fluid, with a view, as I have just said, to keeping the kidneys flushed. How is this to be effected? The best remedy in the treatment of acute nephritis with which I am acquainted is digitalis. Indeed, it is an interesting fact in medical history that digitalis had a reputation in connection with

disease of the kidney long before it had gained its reputation in disease of the heart. In this case it is given as a diuretic, and I shall frequently have occasion to point out its value in the treatment of similar cases. The preparation I prefer is the infusion, giving half an ounce four times a day. Under this treatment the urine has increased from 20 to 47 ounces in the case before you. In addition, so that nothing in the diet should irritate those inflamed kidneys, we placed the patient upon a milk diet; he has had an absolute milk diet and nothing else since his admission. We usually allow in addition a certain amount of fluids, such as weak tea, or any natural diuretic water. If you are not sure of the quality of the water, use distilled water, as the most important element in these waters is the water itself. In this way you keep the kidneys flushed out by using water. As long as the patient is passing 47 ounces daily, I am satisfied. In addition we purged this man with one or two drachms of Rochelle salts, given each morning. Then we also acted upon his skin, and there is nothing better for this than a vapor bath. This can be easily arranged by means of a few hot bricks; but where it can not be carried out, you can resort to some diuretic. Jaborandi or its alkaloid pilocarpin may be used; the latter in doses of one-sixteenth of a grain, given three or four times daily, would be very serviceable. We have not used it here, as we used the baths instead.

Under this treatment, there is no doubt of this man's ultimate recovery, provided he escapes uremic accidents, and I hope to be to be able to show him to you before he leaves the hospital without a trace of albumin in the urine. I must speak of one more feature in these cases which I omitted, that is the fever. The degree of the fever is not high, the temperature going as in this case, to 102° or 102.5°, but not much higher than this.

POST-HEMIPLEGIC TREMOR.

Here is a man of whom as yet I know very little, as he has been in the hospital only a very short time. His name is J. S., he is 58 years of age, colored, a clergyman by profession. The notes taken upon admission state that his family history shows no hereditary taint. He has used tobacco in moderation, but no alcohol for many years. He has been ill for nearly two years. He is subject to attacks of cardiac asthma, or dyspnea, with pain around the region of the heart. He has had a few attacks of epistaxis and also has had attacks of hemoptysis. He says that suddenly, while preaching one day, he found that he could not raise his left arm or move his left leg, nor could he close his left eyelid. Note this curious fact—all this happened while he was preaching. His speech was not affected nor did he lose consciousness; in fact he hardly noticed that anything had happened to him. He was admitted into the hospital about eighteen months after this occurred. During these eighteen months his general health was fair and he regained some power in the left hand and in the leg also, but was able to walk only a short distance. Just before admission he had another slight attack. He did not notice this himself, but his daughter says that he became weak and his mind was distinctly clouded. It is not known whether or not there was any additional loss of power.

Since his admission, we have learned that he had lost flesh during the past year; that his mental condition had become enfeebled; that he has had attacks of giddiness, and that he is subject to slight headache; but this he has not complained of since he came into the hospital. Headache has not been a prominent feature. His temperature has been running about normal, with slight variations. His respirations are 20 to 27 to the minute. His pulse 86 to 90, somewhat irregular, every now and then intermitting a beat. The radial artery is resistant to the touch. When I listen to his heart, I find a distinct, harsh, mitral, systolic murmur, and an accentuated pulmonic second sound. The apex impulse is diffused and only of moderate force. There is some hypertrophy, but only of moderate extent. That is with regard to the heart. The urine is passed involuntarily and it is impossible to get at the exact amount, as he generally passes it in bed. It contains a trace of albumin, of specific gravity 1018 and neutral in reaction. The bowels are irregular. The tongue is coated, flabby, and deviates a little to the left when protruded. He has some control over the left arm, but note the tremor as he raises the hand. He says it has trembled a great deal. My impression is that there is a very slight tremor when the arm is at rest and a very distinct tremor when he attempts to move the hand. The legs do not tremble. This tremor is associated with loss of power to some extent in the left hand and arm. Sensation is diminished on the left side. You observe that these pin-points on the fingers, separated a considerable distance, are felt as one. Sensation is therefore diminished but not abolished on the left side.

Now, gentlemen, what is the matter with this man? He can walk, but has loss of power in the left leg and loss of power in the left arm and hand. There is stiffness in the muscles of the left arm, and some wasting. We have tested the electrical condition of the muscles and find that there is beginning reaction of degeneration, though not marked. There is diminished sensation and power; but not complete paralysis. There is also tremor in the left hand. What has happened here? What was the original disease and what has been its course, and what is occurring now? The original condition was one of cerebral embolism. It was a clear case. The loss of power came on suddenly in the arm and leg, occurring—and I lay great stress upon this—without loss of consciousness. He went on talking, with complete loss of power on the left side of his body, showing that you may have hemiplegia without loss of consciousness. When this occurs, in nine cases out of ten it is a case of cerebral hemorrhage. Here you have an additional reason for this diagnosis in the disease of the heart. A small plug has been washed from the mitral valves and carried into the smaller vessels of the brain and shut off the blood supply to the motor centers of the left arm and leg.

What has happened since the embolism occurred? What often happens in these cases of cerebral embolism—the mental condition has been impaired. Following loss of nutrition in the cortical centers and impairment of function, degenerative changes in this area have taken place. While, as so often happens, there has been some recovery of power, the power has not been entirely restored. But this loss of power is not so much what I wished to show you, as the tremor of the left hand, a spasmodic trembling often associated with disturbance of functions. Now, gentlemen, this is a condition much more common in

cases following embolism than in paralysis from rupture of vessels, and it indicates, in nine cases out of ten, a clot in the vessels rather than an effusion of blood.

You ask the cause of the tremor: Why should the man have a trembling hand, a tremor that has been termed post-hemiplegic chorea? It is extremely difficult to give any definite information upon this point. The tremor with the spasm that may complicate it is due to a deficient blood supply in the motor centers in the brain, either of the cortex or elsewhere. Disturbance of nutrition is followed by disturbance of function, and under certain circumstances by structural change and degeneration. While this explanation is not easily proved, yet we know that a certain amount of blood-supply is necessary to maintain a condition of healthy nutrition, without it, an altered nutrition with tremor and spasm occurs. Now, you may ask where this lesion was located. Considering the hemiplegic and hemi-anesthesia on the left side, it affected the right side of the brain and points to the internal capsule involving the posterior thoroid.

Let me briefly speak of the treatment of this case. The patient is to be kept as well-nourished as possible. Keep the bowels acting and watch the kidneys. In the early stage of the disease possibly iodid of potassium may do good; but where it has existed as long as it has here, we can not expect very much from it. We will give him the syrup of hypophosphites. He shall have gentle massage and good diet. We will caution against exertion and advise rest. Otherwise no special treatment is needed as there is no way of repairing these damaged valves which involve, by their ultimate effects, far more serious consequences than their original attack.

ORIGINAL ARTICLES.

NOTES ON RETENTION OF URINE FROM URETHRAL STRICTURE.

Read before the third district branch of the New York State Medical Association.

BY JOHN W. S GOULEY, M.D.
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The purpose of these notes is to recall attention to some of the ready and simple methods of relieving sufferers from the distress caused by retention of urine due to urethral stricture. This kind of urinary retention is seldom sudden; it is ordinarily preceded by difficult urination, whose increase—from month to month, from week to week, from day to day—is proportionate to the diminution of the urethral caliber at the diseased point, and also to the degree of muscular spasm of that part of the canal. For several weeks prior to complete retention, although urination be very frequent, the bladder is not emptied; this constitutes incomplete retention of urine which, from its stagnate state, soon gives rise to cystitis. At length the urine ceases to flow; there is then complete retention. This urine, accumulating for thirty-six or forty-eight hours, begins to slobber involuntarily, when the complete relapses into incomplete retention.

The laity often regard involuntary escape of urine as cause rather than effect, and endeavor to repress the "undue flow" by sundry processes which, fortunately, prove ineffectual. Meanwhile the vesical distension increases, and unless the patient invokes a physician's assistance without further delay, the urethra is likely to burst behind the stricture and give issue to the urine, which infiltrates and destroys the connective tissue of the perineum and scrotum. In rarer instances of inordinate vesical distension, a fall, a sudden movement of the body, or a violent struggle during anesthesia has been known to cause rupture of the bladder.

Long-standing incomplete retention of urine with spasm of the bladder is much more serious than the retention which becomes complete in the course of a few weeks, for, in the first-named condition, the upper urinary organs are often irreparably damaged and the prognosis is generally unfavorable. It is before the advent of these untoward effects that the greatest good is to be accomplished. Therefore, experienced physicians recommend the early treatment of stricture as preventive of retention of urine and its ill consequences; but their instructions are seldom followed, and the responsibility rests with all unruly patients who are too apt to seek advice at the last moment, when the bladder is distended to its utmost degree and the suffering is more than can be longer endured, even by the most stolid of men, after divers nostrums have been tried and found wanting in efficacy.

It is too common in such cases to resort to cutting operations, which are indicated only after failure of careful catheterism with filiform bougies, or after repeated supra-pubic capillary puncture of the bladder and aspiration of the urine. In ordinary cases it is possible to give prompt relief by making some preliminary dilatation of the stricture; beginning with a No. 1 soft, olive-pointed bougie, and continuing the dilating process by passing successively Nos. 2, 4, 6 and 8, after which it will be easy to use a No. 7 curved web-catheter that serves to allow the urine to flow slowly until about two-thirds of the amount contained in the bladder shall have escaped. The catheter is then plugged at its free extremity, is fastened in position, but is not retained more than thirty-six hours, during which time some urine is drawn off every three hours, and the bladder finally emptied a few moments before the instrument is withdrawn. After this the stricture is gradually dilated by using bougies of increasing size every third or fourth day until the normal caliber and suppleness of the urethra is restored. Without preliminary dilatation by means of small bougies, it is usually difficult and often impossible to introduce a necessarily small web-catheter by reason of its undue flexibility as soon as it is warmed in the uretera. The insertion of a metallic stylet in a small web-catheter is not prudent on account of the possibility to perforate the instrument and the urethra, even when the manipulations are carefully and gently conducted.

Any stricture amenable to the method of treatment above described may be regarded as an easy case. The physician is, however, liable to be called to minister to cases that are not manageable with regulation bougies. Like cases have been related with the paradoxical title: "The way to pass impassable strictures," or "How to pass a bougie when it can not be passed." These surgical bulls have come forth from time to time during the past three decades. The meaning sought to be conveyed seems to be, in the first case—how to pass strictures that are impassable by ordinary instruments; and in the

second case—the kind of bougie to use when the common sort fails. These ideas could have been more briefly expressed by—catheterism in difficult cases.

The difficult cases are those of very narrow, eccentric, tortuous, dense and resilicut strictures, which are accompanied by inordinate spasm of the muscular layers and are seated in the perineal region of the urethra. A second narrowing in the penile region is generally a troublesome complication which often necessitates internal urethrotomy.

A debauch, in wine or venery, is commonly the excitant of complete retention of urine. In such a case the urethral mucous membrane is likely to be swollen and sensitive, and to bleed freely as soon as a bougie is passed. As a general rule, when catheterism is not deemed expedient, the bladder is punctured above the pubes with a hollow needle, through which the urine is aspirated and, if necessary, the operation is repeated until suitable instruments can be used to treat the stricture.

One of the simple and ready methods of entering a narrow stricture, whose lumen is eccentric, is by means of a filiform probe-pointed whalebone bougie, elbowed at its extremity. This instrument is used as an explorer of the narrowed canal and is quickly passed through the stricture in nine out of ten difficult cases, and serves as a conductor for a No. 1 or a No. 2 conical curved steel staff, grooved along its convexity, and having a canal or tunnel two or three millimeters in length, beginning at the blunt point of the instrument and ending in its groove. Through this canal is threaded the bougie, which guides the staff into the stricture, dilating it sufficiently to permit the introduction of a larger tunneled sound, then a third, fourth, fifth, and so on, until divulsion occurs. After this a tunneled catheter is substituted and enough urine is drawn off to relieve the distress caused by distension. The bladder is not completely emptied until the second day. The object of delaying to empty the bladder is to guard against vesical hemorrhage, which is so likely to occur after the sudden withdrawal of all the urine in cases of long-standing distension of the viscus, particularly in elderly men.

It sometimes happens that stricture is so dense that it can not be dilated by the tunneled sound beyond No. 2 or 3. In that case a tunneled catheter No. 2 or 3 is substituted, and through this instrument the urine may be aspirated if necessary. Then a small web-catheter is passed and fastened in position for forty-eight hours, during which time the urine is allowed to trickle out, partly through and partly beside the instrument. On the third day it is generally possible to carry on dilatation with less difficulty and, if needed, the process of continuous dilatation may be repeated until the stricture shall admit a bougie of the size of the normal caliber of the urethra. When, however, a stricture seated in the perineal region can not be entered with any kind of bougies, after repeated trials, it is proper to resort to its external division, with the double object of curing it and of relieving the distended bladder.

For some years past there has been a pernicious fashion of dilating the strictured urethra to an excessive extent and of using the dilators with undue frequency. In the many cases so treated the consequence has been a total loss of the urethral suppleness due to sub-acute urethritis, with extensive infiltration of round cells and their subsequent transformation into scar tissue, so that the canal, although greatly increased in caliber, is in a state of permanent contracture.

Men of dissolute habits, like the cases presently to be stated, seldom return for radical treatment until they are again suffering from retention of urine. Narrow resilient strictures are not permanently cured by any method of treatment whatsoever, unless the treatment is followed by the persistent use of dilating instruments, once every week or ten days, for at least three years. Some patients need the use of such instruments for many years, if not for life,

The following recent cases may serve to illustrate the efficiency of tunneled sounds and catheters in difficult cases of urethral strictures with complete retention of urine.

W. L. S., 28 years of age, was admitted to Bellevue Hospital on the 8th of April, 1895, suffering much pain from retention of urine, which had become complete thirty-six hours before. He had had three attacks of urethritis, the first, twelve years, the second three years, and third, eight months, before admission to the hospital. The first attack lasted three months, the second, four months, and the third merged into a gleet which existed at the time of his final retention of urine. During the eight months prior to admission, he had repeatedly had complete retention of urine after great abuse of ardent spirits, but was each time spontaneously relieved, except after the last debauch, which began early in April, 1895, when, on the morning of the 7th of that month, the retention persisted, but he did not apply for medical aid until the following morning, and the physician employed undue force in using the catheter, with the only result of drawing blood instead of urine. With his bladder distended to the level of the umbilicus, the patient was conveyed to the hospital on the afternoon of the 8th of April. Exploration of the urethra revealed a narrow stricture in the region of the bulb, and a false passage anterior to the stricture. The urethra having been filled with oil, an elbowed filiform whalebone bougie was passed through the stricture and, reaching the bladder, was used as a conductor for Nos. 4, 6, and 8 conical tunneled sounds with which the canal was rapidly dilated, when tunneled catheters Nos. 7 and 10 were introduced, and eighteen ounces of urine drawn. The patient was then sent to bed after he had taken ten grains of quinine. No anesthetic agent had been administered. Three-quarters of an hour afterward he passed spontaneously five ounces of urine without, however, emptying his bladder. In two days the stricture was dilated to No. 12 (English gauge); on the fourth day, to No. 13; and on the eight day to No. 14 which has since been introduced every fourth day. The patient has experienced no untoward effect and has been able to urinate at ordinary intervals, in a large stream, and to empty his bladder. It is scarcely necessary to say that antiseptic precautions were taken in the treatment of this, as well as in the many other cases of urethral strictures received in the hospital.

E. T., 50 years of age, was admitted to Bellvue Hospital, on April 22, 1895, in a profound state of alcoholic intoxication, suffering from complete retention of urine of forty-eight hours standing. His bladder was distended beyond the umbilicus although urine had been slobbering out for twelve hours. He was an habitual excessive drinker and his final de-

bauch had lasted three days. He had had three attacks of urethritis in the course of fifteen years, and had suffered retention of urine three times during the twelve months prior to his admission. Once the bladder was relieved of its burden of urine by suprapubic capillary puncture and aspiration. There were two dense, narrow strictures, one in the penile, one in the perineal region of the urethra. Very soon after admission he was successfully catheterized with a fibiform whalebone bougie and tunneled instruments, beginning with No. 2, and carrying the dilatation to No. 6, when twenty-eight ounces of clear urine flowed through the catheter; this being about two-thirds of his bladder contents. An olivary bougie No. 5 was then passed and retained in position twenty-four hours; the urine oozing beside the bougie after a few hours. The usual dose of two grains of quinin was administered. Dilatation of the strictures was continued every second day, and at the fourth and fifth sittings No. 8 was easily introduced. In the meantime the patient urinated in a good stream at regular intervals. Dilating instruments were used every fourth day until No. 13 could be easily passed. The patient was advised to continue this treatment indefinitely, and was discharged at his own request on the 27th of May.

The writer has employed this method of treatment, in upward of five hundred difficult cases of urethral stricture, with a degree of success that warrants an earnest recommendation of its more general use. In the great majority of these cases, no anesthetic agent was administered, because the operation is not very painful, because it is of short duration, because of the danger of vesical rupture incurred during the struggles of the semi-conscious patient in the second stage of anesthesia, and because of the ill effects of some anesthetics—particularly ether—upon the kidneys. The mortality has not exceeded three per centum and has been due mainly to advanced disease of the bladder, ureters, and kidneys.

SUSPENSION OF THE UTERUS.

THE OPERATIVE TREATMENT OF RETROFLEXION BASED ON A CONSIDERATION OF 200 CASES.

BY HOWARD A. KELLY, M.D.
BALTIMORE, MD.

At the meeting of the AMERICAN MEDICAL ASSOCIATION in Baltimore in May, 1895, I made an address before the Obstetrical and Gynecological Section on the subject of the "Operative Treatment of Retroflexion," taking as a basis of my remarks the 170 cases upon which I had operated since coming to Baltimore six years ago. Since May I have added thirty more cases, bringing the total up to exactly 200. All but a few of these cases were operated upon in the Johns Hopkins Hospital; the others were patients in my private sanatarium.

The mortality in the 200 cases has been zero, and there has not been a case of serious illness following the operation. There has been one recurrence of the retroposition, making the failures one-half of one per cent. In about 5 per cent. of the cases stitch-hole abscesses and separation of the lower angle of the incision occurred; this accident very rarely happens now with my present technique in closing the abdominal incision.

The suspensory operation was abandoned in one case recently because the enlarged uterus was so friable that the stitches cut out as soon as they were tied.

In all cases where the vaginal outlet was relaxed it was repaired at the same time the uterus was suspended; when there is both retroflexion and relaxation of the vaginal outlet, if I can do only one operation, I prefer to lift up the outlet under the pubic arch. It is well known that I have always been an earnest advocate of the direct method of treating retroflexion by a small abdominal incision, bringing the uterus into anteposition and holding it there by two stitches through the anterior abdominal wall and the posterior surface of the fundus. I am influenced by four principal reasons in concontinuing this method of treatment, which I originated nine years ago; these are:

a. A natural tendency to continue an investigation in the line already opened up (see *American Journal of Obstetrics*, January, 1887).

b. The advantages of a direct inspection of the ovaries and tubes, as shown by the cases of inflammatory adhesions found at the operation, where it was not known that any had existed. In one case I was fortunate enough to find a little papilloma, not as big as the end of my finger, starting out of the ovary. When the uterus is adherent no other method can be so good, as this is the most direct way of dealing with the adhesions.

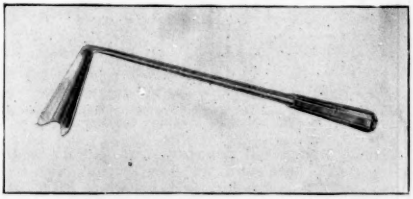

FIG. 1.—Elevator which serves to hold uterus up while first stitch is being passed.

c. The mechanical advantages of my suspensory operation acting directly on the posterior surface of the retroflexed fundus, are better than the same organ held forward by pulling on the round ligaments on both sides.

d. Probably the best reason of all is the remarkable statistics of my 200 cases without a single death, and with but one recurrence of the displacement in a patient in whom a tube and an ovary were removed at the same time.

With this introductory statement I present my address substantially as given at the Music Hall last May, with the analysis of the first 170 cases. The last thirty are more recent and may, therefore, be left out without disadvantage.

I hope the illustrations which accompany my paper will help make clear some points which are difficult to describe away from the actual demonstration on the patient.

I have adopted the same "Suspensio Uteri" as more correct than "Hysterorrhapy," which is a plastic suture of the uterus, or than "Ventrofixation" or "Hysteropexy," both of which, though widely used, give a false impression of the results obtained. If the operation is properly performed the fixation (*pexy*) of the uterus lasts but a short time, after

which the organ is found mobile with fundus well forward in an easy natural anteflexion, and with a marked space between it and the abdominal wall to which it was attached.

The casts forming the basis of this report are all of my operations between Oct. 16, 1889, and May 1, 1895, and they include all the cases I have ever operated upon by the method I shall here describe as the best.

In my earliest efforts to hold up the retroflexed uterus in anteposition I utilized first the cornu uteri and then the anterior face of the broad ligaments, taking by preference the round ligaments close to the uterine attachment as recommended by Olshausen.

Most of these cases held well, but some eventually dropped back and the old symptoms returned. The reason for this (as I pointed out in my first paper in the *American Journal of Obstetrics*, Jan. 1887, p. 33), is clearly that the uterus is put in a position of mechanical disadvantage when the anterior face is drawn up against the abdominal wall above the symphysis.

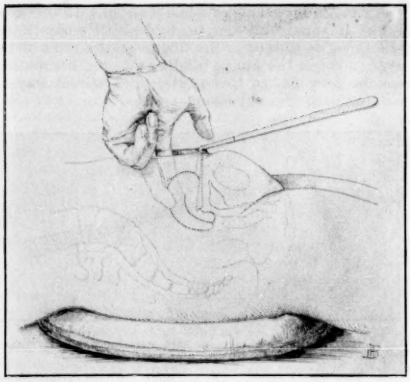

FIG. 2.—Elevator in and hand holding uterus in place while first stitch is passed through posterior surface of fundus.

The best way to do the operation is to bring the uterus into anteflexion by passing the sutures through its posterior surface. In this position a slight force will hold it better than a much larger one where the fundus is thrown back by bringing the anterior face against the abdominal wall.

Indications for Suspension.—The indications for suspension of the uterus are the existence of a retroflexion which cannot be corrected or whose symptoms can not be relieved by non-operative treatment, such as packing, massage, and pessaries.

I would use it in all those cases of retroflexion which, as Dr. Beverly MacMonagle of San Francisco puts it, are more or less tied to the office of the physician by their ailment; patients who may go for years, better at times and then worse again for several weeks or more, and never feeling quite well.

I would also urge a suspension where the menstrual difficulties, backache and bearing down pains, headache, loss of appetite, difficult defecation, and various general disturbances are persistent.

The classes just cited are easily recognized because their pelvic symptoms are so prominent as to attract attention at once; but there is another class of neurasthenics equally important, whose local symptoms may be more or less in abeyance, and the first impression is that the neurotic condition is primary and fundamental, and the local disturbance merely accidental. I know of no class of cases where a good professional instinct and good judgment come into better play in selecting the suitable case and rejecting the others.

In a woman who is persistently neurasthenic, or in one who after repeated building-up efforts persistently falls back into a morbid neurotic state, where there is a retroflexion or retroposition, with definite pelvic disturbances becoming more marked at the menstrual period, I would without hesitation urge suspension.

A young woman came under my care three years ago, through the courtesy of Dr. I. E. Atkinson of this city. She had been bed-ridden for four years, most of which time she had spent in a hydropathic

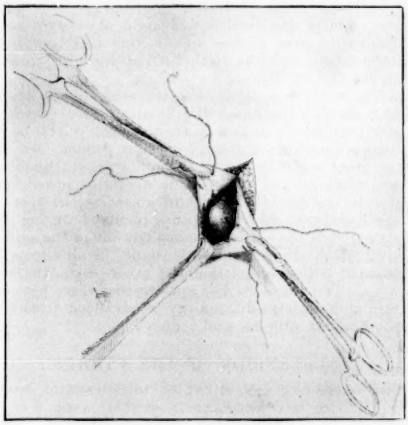

FIG. 3.—Two silk sutures in place in the posterior surface of uterus near fundus, not yet tied.

establishment securing imaginary improvements. She was a typical hysterical neurasthenic, as she lay drawn up in bed with a miserable pinched look, apparently oblivious, but really taking in all that was going on about her.

She had that peculiar expression which is so easily read and which forbids any appeal to reason and high moral grounds as out of the question. The only tangible trouble was a retroflexion, with tenderness and marked disturbances at each monthly period.

I first shortened both round ligaments intraperitoneally by Wylie's method, and she began to improve in a remarkable manner, but one day about three weeks after the operation I found her again miserable and depressed, complaining of all her old symptoms. Examination showed that the uterus had dropped back to its original position. The abdomen was reopened and the uterus suspended by my present method. She at once got better and is to-day one of the finest and healthiest women mentally and physically that I have the pleasure of counting

among my friends. I have never seen a greater transformation in any one. I would therefore operate for a retroflexion in the hysterical, neurasthenic patient with pronounced pelvic symptoms, and I would do it with the expectation of an occasional failure to give relief. One cure like that above is worth even half a dozen failures, provided they entail no disability upon the patients.

Operation—following is the method of operation:

1. After due preparation, emptying the bladder and anesthesia, the abdomen is slightly elevated and an incision 3 to 5 cm. long is made, beginning about 2 cm. above the symphysis, down into the abdominal cavity.

2. The peritoneum is then caught with artery forceps on each side and drawn out. This is to prevent pulling in the peritoneum by the suspensory sutures and leaving none to close the incision.

3. The retroflexed uterus is then hooked up and lifted into anteflexion by means of two fingers carried into the wound.

4. One side of the incision is then elevated with two fingers, and the peritoneum and subperitoneal fascia caught with a curved needle carrying the suspensory silk ligatures. The amount of tissue embraced is about one-third of an inch wide and one eighth of an inch in depth.

5. The same (ligature) is then conducted through the uterus on its posterior face below the fundus, and finally through the peritoneum and fascia of the opposite side, when it is tied, bringing the uterus up snugly against the anterior abdominal wall. If the pelvis is deep and the uterus lies out of reach, it may be brought up and held in position while passing the suture, by means of an elevator such as is figured here. This is introduced down into the pelvis in front of the uterus, which is pressed into it and held as against an artificial symphysis. As soon as the first stitch is passed the elevator is laid aside. After tying the first suspension suture, the second is easily put in, entering and emerging on the abdominal wall just above the first and piercing the posterior surface of the uterus just below the first; when it is tied it increases the anteflexion.

6. The sides and front of the uterus are examined to see that no intestine is caught, and the omentum is drawn down, and

7. The abdomen is closed. I do this by taking off the forceps and sewing up first the peritoneum with the finest silk, and then drawing together the fascia with one or two silver wire mattress sutures, finally closing the skin with a subcuticular suture of fine silk.

The patient may rise sooner, but I find it better to keep her quiet from two to three weeks. It is not necessary to wear an abdominal bandage, and I never put in a pessary afterward.

It was necessary in one case to reopen the abdomen for a hemorrhage following the operation; this arose from the slipping of the ligature at the cornu uteri, the stump of an amputated tube and ovary. There was no trouble from adhesions or incarceration of a knuckle of intestine in front of the uterus in any case.

Out of 130 of these cases carefully analyzed for me by Dr. George W. Edwards for the results, within a few weeks of the operation 100 were reported well, 26 improved, 4 not improved. The recovery was interrupted:

By a transient mania in 3 cases; by bronchitis in 3 cases; by pneumonia in 1 case; by stitch abscess in 3 cases: by hemorrhage from a repaired outlet in 1 case; by dysuria in 4 cases; by hysteria in 4 cases.

The proportion between married and single women was about 2 to 1.

I am not prepared at present to state the number of children born since operation. There have been at least six pregnancies, and in but one was there any marked discomfort and dragging due to the attachments of the womb. (*Amer. Jour. of Obs.* 1894, p. 370.)

I do not know of any case in which the retroflexion has recurred after pregnancy.

There has never been a hernia in any case.

In women who have borne children the retroflexion is often associated with descensus and relaxation of the vaginal outlet. It is useless to expect relief in these cases by simply suspending the uterus which, instead of being gently detained in easy anteflexion, simply drags on its attachments until they give way. In such cases the vaginal outlet must invariably be repaired too. Sixteen out of 133 cases needed the vaginal repair. In going over my statistics I am surprised to find so few needing this double operation and estimate the percentage at present as certainly much larger.

In 7 cases both tubes and ovaries were removed for disease; in 9 cases one tube and ovary removed; in 3 instances I ligated either uterine or ovarian vessels; in 2 a myomectomy was performed; in 1 a nephropexy.

THE DISEASES, DEATH AND AUTOPSY OF NAPOLEON I.

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CHICAGO.

Napoleon has again invaded the nation, coming this time on a tidal wave of literature. The magazines for two years have been full of him. New books describing his campaigns have rapidly appeared, and now at last physicians are beseiged for opinions about his diseases and the causes of his death.

The gigantic intellectual power of this man was such that even now, seventy-five years after his death, few writers can look calmly on his career and weigh him impartially for what he was worth. They dispute about about his acts, motives and morals, and take sides for and against him as if he were alive and still riding at the head of his armies.

This folly has filled the air of history with a fog which obscures every part of his biography, medical or otherwise. However, after much hard work I have so far gotten at the truth that I think I can give a substantially correct account of his diseases and of their influence on his career.

The facts of his medical history mainly depend on five writers cotemporary with him, whose works are now old, rare and difficult to find, to whose accounts may be added numerous scattered facts preserved by non-medical persons.

The earliest of these five writers was William Warden, surgeon on board H. M. ship *Northumberland*, which conveyed Napoleon to St. Helena. During the voyage, and for a month after, Warden was in close and friendly intercourse with the Emperor, and preserved many facts and conversations of his patient, who talked freely to him with a view to the publication of his ideas, hoping thereby to modify some of

the prevailing English prejudices. Warden published his little book two years later, and it was read to Napoleon by his attendants at St. Helena.

The Government detailed a naval surgeon named Barry O'Meara to act as Napoleon's physician at the island. He was a well-educated man, as education went in those days. He lived on the most friendly terms with his patient; but as he would not betray the professional secrets of the ex-Emperor's acts and conversation, the Governor, Sir Hudson Lowe, was angry, so that he and the doctor got on very badly together, living in a state of illy suppressed animosity. O'Meara was an honest and truthful man, but biased strongly in favor of Bonaparte. He kept a faithful diary of facts and conversations for future publication, apparently with Napoleon's approval; and, as he suspected that the irate Governor would seize his sheets, he secretly sent off copies of them to England as fast as they accumulated. His diary covers a period of nearly six years.

Napoleon kept up a constant quarred with the Governor, whom he called a rascal, or hangman, a hired assassin, and many other names not very endearing. After some five and a half years, the Governor sent O'Meara back to England, being suspicious that he secretly helped the Emperor to correspond with Europe. O'Meara published his diary in 1822, a year after Napoleon's death, suppressing certain parts which he felt bound by professional obligation to keep private.

On O'Meara's removal, the British Government requested Napoleon's uncle, Cardinal Fesch of Rome, to select a successor to O'Meara. The Cardinal chose a Roman physician named Antommarchi, who was sent to the island and cared for the royal prisoner until his death in 1821, some nine month's after Antommarchi's arrival.

He subsequently published a report, reasonably correct as to physical facts, but full of venomous hostility to the Governor.

During the last two months of the patient's life Dr. Antommarchi requested Dr. Arnott, a naval surgeon at the island to consult with him, which he did and continued to do almost daily until the patient's death, some eight weeks later, in June, 1821. Dr. Arnott's report of the consultations and of the autopsy was published. He appears to have been a well educated and honorable medical man.

Before his death Napoleon directed that a post-mortem examination be made, and that a report of his case be made out for his son.

Eight years later, when that son reached his majority, Dr. J. Héreau of Paris, former surgeon to "Madame Mere," the Emperor's mother, and to the Empress, Marie Louise, carefully examined the reports of the four surgeons above mentioned who attended Napoleon at St. Helena, and searched every other accessible source of information about his prior diseases and their causes. This semi-official report was printed, and a copy presented to Napoleon's son when he arrived at his majority. Héreau was an intelligent medical man, and though full of animosity against the English, and bitterly prejudiced against the Emperor's attending physicians, he handled the scientific facts of the case with an evident intention to be truthful.

These five old books, with a few scattering facts from other cotemporary writers, contain about all that is left on record of Napoleon's medical history.

Naturally, the earlier allusions to his diseases are scanty. While he was on the throne everything pertaining to the imperial health was a profound State secret, and for the most part his physicians were faithful to their professional obligations and died without revealing anything. Héreau only wrote because the dead Emperor had commanded it, and his son and heir authorized it.

Though the known facts were thus scanty, hundreds of rumors all along prevailed about his diseases and death.

Napoleon himself constantly charged that he was being intentionally killed by the climate of St. Helena, and left on record this sentence: "I die prematurely, murdered by the English oligarchy and their hired assassins."

When the news of his death first reached Paris the wildest rumors sprung up and were believed. One was that the Governor of St. Helena, Sir Hudson Lowe, enticed the Emperor out for a walk and suddenly pushed him over a precipice into a chasm, when a sentinel shot him for being outside the dead-line. Another stated that he was suffocated under a mattress, a third that he was strangled in his room, and a fourth that he committed suicide.

Napoleon's suite returning from St. Helena soon contradicted these wild stories, yet Dr. Héreau, writing eight years afterward, said that it was still believed outside of Paris that he was poisoned. To this day French writers occasionally speak of him as murdered by the English. Dr. Héreau himself says there was no murder and no suicide; but he thinks the tropical climate of St. Helena was very deadly, and shortened his life.

The facts about the climate are these: The island is situated in the southern tropics, but the Emperor's residence was in a farm-house called Longwood, 2,000 feet above the sea, where the temperature was never above 75° F. nor below 60°. There were no marshes on those rocky hills, and no malaria. The sea winds were unpleasantly strong, and Napoleon complained of their dampness and coolness and of the frequent showers; but the post-mortem showed that he did not die of any disease of the respiratory organs. Decidedly it is a healthy climate for most persons. We may therefore dismiss the climatic question with the rumors of murder, etc., and discuss more tangible facts.

WOUNDS RECEIVED IN BATTLE.

Napoleon's body at the autopsy showed the scars of several wounds, especially on the thighs and legs. He told Surgeon Warden that he had eighteen horses shot in battle, and that he received several slight wounds which he seems to have concealed as far as possible. One or two of them he even kept back from the knowledge of his surgeon, treating them himself by wrapping wet cloths around them. The motive was probably this: He found great advantage in giving his army the impression that he was an extraordinary and invincible being, having a supernatural star of destiny that insured victory and protected his person from death. It was not judicious, therefore, to allow his troops to become too familiar with the idea that he might be shot and killed like any common man. None of his wounds were serious, or left any injury to his health.

HIS "MYSTERIOUS MALADY."

Field-Marshal Garnett Wolseley, present head of

the British Army, in his book entitled "The Decline and Fall of Napoleon," says that in his Russian campaign of 1812 the Emperor began to show the effect of some "mysterious malady" which injured his mental powers. He would plan a campaign with all his old-time military genius; but when the fight was actually on, and before the close of the day, his energy flagged, he became drowsy and negligent and let the fruits of his victories slip away from him. The Empress Josephine remarked that after great battles, even when victorious, he suffered great depression of spirits and expressed intense dissatisfaction with the results obtained. At the battles of Dresden, Ligny and Waterloo, Field Marshal Wolseley says this mental failure showed itself plainly, and his generals noticed it. On the day before Waterloo Gen. Vandamme said, "The Napoleon we once knew no longer exists. The victory of yesterday (Ligny) will yield no fruits." The Minister of War, Carnot, remarked in substance as follows: "I no longer know him. He used to be lean, shy and silent. Now he is fat and garrulous. He is sleepy, and his mind wanders. He, the man of rapid decision, who resented the proffer of advice, now talks instead of acting, and asks opinions."

Wolseley states that at the battle of Waterloo Napoleon suffered pain in riding, and that he had a table set in the open air in a suitable position for receiving dispatches and issuing orders, where he sat for hours, much of the time asleep, leaning his head on his arms. When it became necessary to get him away from the field, he was so drowsy that it was difficult to get him upon his horse.

Now all his physicians agree that he was unusually abstemious in drinking, and there is not a shadow of proof that he took opium, so that his drowsiness did not arise from these causes. At St. Helena he was a poor sleeper, rising at three or four o'clock in the morning and using all sorts of devices to while away the unwelcome waking hours. He had, therefore, no permanent lethargic disease.

The truth probably is this, taking the Waterloo campaign for an example: About a hundred and ten days previously he had landed from Elba. In twenty days of intense labor and sleepless energy he had marched to Paris, overthrown the King and taken again his imperial throne. There "he worked like a galley slave for eighty-four days," toiling fifteen hours a day to reorganize the Empire, raise an army, put down royalist uprisings, gather money ($20,000,000) for his campaign and march his troops to Belgium. All this terrific labor he accomplished while suffering under a genito-urinary disease which may have partly weakened his force of will. He must have arrived in Belgium exhausted mentally and physically to the verge of collapse by overwork and loss of sleep.

Napoleon was not superhuman. His drowsiness and illness at Ligny and Waterloo were presumably due to the above causes. A medical man would hardly call his condition a "mysterious malady."

WAS HE AN EPILEPTIC?

In 1810, when Napoleon was in the height of his glory and England was full of the wildest rumors about him, one Louis Goldsmith published a book in which he gathered up every sort of story against him, regardless of its truth or falsity. Among other things he said that all honest men would be glad to learn that Bonaparte was an epileptic. His proof was the statement of a French theatrical actress named Mdlle. Georges Weimar, who alleged that she had been called to spend the night with the Emperor at the palace of St. Cloud. In the course of the night he was attacked with convulsions, which so frightened her that she screamed aloud and roused the palace, causing the attendants and the royal family to rush in. She stated that the Emperor, on recovering from the fit, discovered that her screams had caused the exposure, and that he drove her out of the apartment, throwing her clothes after her.

Now it is not incredible that any one should have epilepsy, but the testimony of a prostitute is no proof of the alleged fact. The story sounds exactly like one of the lies which prostitutes delight to tell when they seek to increase their importance by relating their wonderful adventures with great men.

Goldsmith gives another tale equally destitute of authentication. It is to the effect that Napoleon, walking in a partly lighted corridor, met an attendant whom he did not recognize, and that he became frightened, screamed aloud, and fell down unconscious. These tales prove nothing.

The only other evidences which I can find are these: Surgeon Barry O'Meara, who attended him nearly six years at St. Helena, mentions that on two mornings the Emperor told him that he was apprehensive of apoplexy, for he had experienced a nervous attack during the night and thought he had lost consciousness a few moments. His servant thought he was faint on one of the occasions and threw cologne into his face to arouse him, causing his eyes to smart. This may have been a nightmare. Dr. Héreau says he was subject to twitchings of the left shoulder and of the corner of the mouth, and also at times to vertigo. These symptoms might possibly be with Jacksonian epilepsy, but it is not probable.

On the whole, if Napoleon were an epileptic from the date of Goldsmith's book in 1810, to his death in 1821, it must have been known to many physicians, surgeons, staff officers, secretaries, guards, valets, servants, and members of the imperial family; and however faithfully they kept the secret during his power and prosperity, some of their tongues would have been loosened after his fall and death. The rumors were universal on both continents, but there is probably no truth in them.

HIS CUTANEOUS ERUPTION.

The memoirs of the Empress Josephine state that Napoleon was "tormented" with an eruption of the skin, caught by using the rammer of a dead artilleryman at Toulon, who had scabies. Bonaparte, himself made the same statement to Surgeon Warden, on the voyage to St. Helena. He said that at the outset of his military career, when he commanded some batteries at the seige of Toulon, two of his gunners were killed, one of whom had the itch. Napoleon seized the fallen rammer and proceeded to serve the gun, whereby he took the disease, which was shortly cured by appropriate treatment. This trival accident led to a pathologic error. The parasitic nature of scabies was not then discovered, and as the patient some montns afterward was attacked with a chronic eruption, probably eczema, which "tormented" him at intervals for the rest of his lifetime, he and all his surgeons, including Héreau, supposed that the original disease was imperfectly cured, and had "receded"

or "struck in," and produced the general eczema, and also had attacked his internal organs, producing various troubles and among them the urinary obstruction. Héreau says the eczema mainly attacked the outer sides of his thighs, but that when it was "driven in" by exposure to stormy weather his internal disorders became very distressing, so that the Emperor acquired a great dread of cold and wet. This perhaps accounts for his leaving the field during the rain storms at the battles of Dresden and Ligny.

I assume that the eruption was eczema. Josephine's statement that it "tormented" him implies that there was severe itching, which fact shows that it was not syphilitic, since eruptions of the latter disease do not itch. He made free use of baths, probably to relieve the trouble, often taking his breakfast while sitting in his bath.

HIS URINARY TROUBLE.

During the Russian campaign in 1812, Napoleon began to have difficulty in expelling his urine. It was attributed to the effect of the cold in causing a "recession" of his eruption to the internal organs. It gradually got worse and continued throughout the rest of his life.

In the midst of the most important business he was often obliged to retire suddenly to relive himself. In field service he acquired the habit of leaning his head against a tree or a wall, and in that position with difficulty and pain forcing out his urine. He seems to have suffered severely, for he once remarked to an attendant, "This is my weak part. It is this which will ultimately cause my death."

These are the actions of a man who has a mechanical obstruction of the urine accompanied with cystitis. The three usual causes are enlarged prostate, calculus, and stricture of the urethra. He was too young to have a senile prostate. Nine years after a few small calculi were found at his autopsy, but had they been there nine years they would have been very large. There can be but little doubt that the trouble was urethral stricture with cystitis. As his amours were very numerous, the stricture presumably had the usual origin in gonorrhea. The urethra was not examined at his autopsy, but the bladder was opened. It was found very much contracted, and contained a few small calculi. The kidneys seem barely to have been looked at, but not opened. The left one was narrower than the right, and lay turned over and adherent to the sides of the vertebra. Presumably it was a kidney contracted by inflammation. Nothing was known at that time about the relations of nephritis, albuminuria, and uremic poisoning. Four years before his death, while his general vigor was still fairly good, he began to have dropsical swelling of the feet and legs, and as his heart was not diseased he probably had chronic nephritis. The sequence of events seems to have been this:

1. An attack of gonorrhea.
2. A stricture of the urethra.
3. A cystitis
4. Nephritis, with a few small calculi.
5. Albuminuria, dropsy of the legs, and uremic poisoning in a moderate degree.

This may have impaired the action of the brain and the mind, and caused some of the defects of skill in battle noted by Field-Marshal Wolseley. There is no account that the stricture was ever surgically treated, yet it ought to have been, for the use of "waxed bougies" for that purpose was already well known. Possibly the self-will and obstinacy of the patient prevented their application.

CANCER OF THE STOMACH.

For several years Napoleon had a gradually increasing trouble of the stomach which he believed to be cancer, inherited from his father, who died of that disease. Apparently it had no connection with the urinary trouble. He ate a reasonable quantity at meals but swallowed it quickly, often finishing in fifteen minutes. He usually took at each meal half a bottle of the weak French claret, called "vin ordinaire," which shows him to have been much more abstemious as to wine than was common among French and English gentlemen of his day. He said he was unable to drink freely on account of the rebellion of his stomach.

As his stomach disease progressed he began to vomit, and that symptom increased to the end. He had also severe pains about the liver and adjacent regions. His physician, Dr. Antommarchi, at length called in Dr. Arnott, an English naval surgeon, in consultation, and they attended him together until his death from the stomach trouble, about eight weeks later.

Napoleon left directions that a post-mortem examination should be made by Dr. Antommarchi and that none of the English surgeons should touch him, or if any help was necessary Dr. Arnott alone should assist.

The Governor humored the dead man's whim by allowing this absurd dictation to be carried out, but he ordered five army and navy surgeons to be present and make a report of the autopsy. Three other English surgeons were also present.

Dr. Antommarchi did the dissections and the others looked on. The examination was miserably defective, but the art of making autopsies was then in its infancy. Perhaps this was done as well as might be expected at that day, especially as there was no expert pathologist on the island.

The report of the English surgeons differs in some minor points from that of Antommarchi, but in the main they agree.

The body was measured and found to be five feet two inches and four lines in length, English measure, Napoleon being a very short man. His head was twenty inches and ten lines in circumference, presumably the occipito-frontal circumference, for the reports do not state where the line was applied. Héreau in some way derived the impression that the tape was applied just above the ears, and not at the usual place, around the occipito-frontal circuit. The latter would have given a little larger measure. Whichever it was, the head was a rather small one, in spite of the fact that the pictures of the artists generally exaggerated it, and made it look large. Perhaps the very small stature made the head seem relatively large.

The brain was not examined.

The body was corpulent, notwithstanding the weeks of severe vomiting. The fat was an inch and a half thick along the abdominal incision, and the omentum was loaded with adipose tissue.

The stomach was the main seat of disease; the roof of the organ, that is the lesser curvature, was occupied by a cancerous growth, which extended from near the cardiac orifice to within an inch of the

pylorus, and was lobulated along its anterior and posterior borders.

Antommarchi's report calls it "cancerous ulceration." The English report describes it as "a mass of cancerous disease or scirrhus portion advancing to cancer." The phrases are obscure, but agree in the main idea of cancer. The two reports disagree in the extent of it, but I have followed Antommarchi, whose observation was evidently the more precise. The left extremity of the stomach and nearly all its lower curvature were healthy. The cancer at its right extremity had crept around the entire inside of the stomach in a ring form, and had created there a stricture, which must have been the cause of the persistent vomiting. The pyloric end of the stomach for one inch was free from the malignant growth, but its upper surface was perforated by a circular ulcer through all the coats. Apparently some leakage of the contents of the stomach had at some time taken place, but a local peritonitis had stopped the effusion by causing a firm adhesion of the roof of the stomach to the liver, and of the whole upper surface of the liver to the diaphragm. Incisions into the hepatic tissue showed a perfectly natural color. The spleen was enlarged. The lymphatic glands near the borders of the stomach were enlarged. The heart was natural, the pleura showed small spots of adhesion and contained a little fluid. The lungs showed only trifling diseased signs.

Microscopic diagnosis had no existence in those days, but the gross facts, though badly observed and badly reported, show that cancer of the stomach caused the death, while the rather extensive local peritonitis caused by the circular ulcer assisted to extinguish the life.

The tropical climate and the ocean winds, so much blamed by Héreau for shortening Napoleon's life, left no characteristic traces in the respiratory organs nor in the other viscera. They did not hasten by a single hour the great ex-emperor's death.

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THE LOCATION OF THE APPENDICULAR ABSCESS.

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That the appendix is extremely variable in its location, and that abscesses formed about it may occupy areas widely remote from the usually described appendicular region, are facts which the surgeon who has operated often in cases of appendicitis has frequently encountered. Attempts have already been made, particularly by Gerster (New York *Medical Journal*, July, 1890) and v. Sonnenberg (*Deutsch Zeitsch. für Chir.*, Bd. XXXVIII, Heft. 2 u. 3) to classify these abscesses according to location, accessibility, etc. Gerster describes five types of these abscesses, classified according to the point where they come in immediate contact with the abdominal wall, and are accessible to the knife without traversing the free peritoneal cavity:

1. *Ilio-inguinal Type*—The abscess lying anterio, externally beneath the parietal layer.

2. *Anterior Type*—Lying more internally, in direct contact with the anterior abdominal wall.

3. *Posterior Type*—Lying in contact with the posterior peritoneal wall.

4. *Rectal Type*—Accessible through the rectum.

5. *Mesoceliac Type*—Lying in the midst of loops of small intestine not in contact with the abdominal wall at any point.

v. Sonnenberg (*Deutsch Zeitsch. fur Chir.*, Bd. XXXVIII, Heft. 2 u. 3) describes four types:

1. *Anterio—external*—The loops of small intestine which almost always lie between the lower end of the cecum and the anterior abdominal wall become agglutinated early. As the amount of pus increases these are pressed aside and the pus reaches the parietal peritoneum which forms the anterior wall of the abscess, the cecum with loops of small intestine form the posterior and upper and inner wall, while the iliac fossa limits it externally. The appendix in

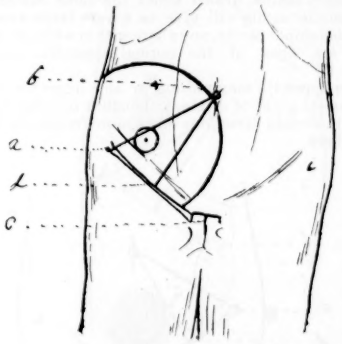

Fig. 1.—*a*, ant. sup. spine of ilium; *b*, umbilicus; *c*, symphysis; *d*, Poupart's ligament.

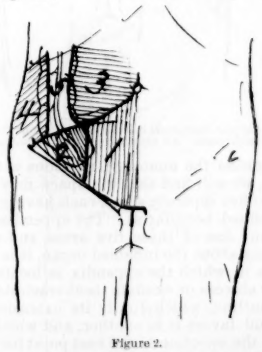

Figure 2.

these abscesses is usually found in front in the iliac fossa, or along the outer and lower surfaces of the cecum.

2. *Posterior*—The abscess is limited in front by the cecum, and behind by the posterior abdominal wall.

3. *Internal*—Abscess bounded externally by the cecum and colon, posteriorly by the mesocolon, and internally and below by adherent loops of small intestine.

4. *Pelvic*—The abscess occupies the small pelvis, usually the right side or in the recto-vesical pouch in the male, or Douglas' cul-de-sac in the female.

Without entering into particulars, it is sufficient to

say these classifications are imperfect; some types which are quite common and possessing markedly distinctive features being omitted entirely and others imperfectly outlined. Before considering in detail the various abscesses as they may appear about the diseased appendix, let us dwell for a moment on the location of the healthy organ. A circle of an inch and a half in diameter—the size of a silver dollar—drawn about the center of the posterior surface of the cecum will touch the base or point of origin of the appendix in about 96 per cent. of all cases. It will thus be seen how constant is the location of the base of the appendix. The average length of the adult appendix is 9 cms., or three and one-half inches. A circle, then, of four-inch radius, drawn about the same center as our smaller circle will give us a very large area in the abdominal cavity, anywhere within which we may find the apex of the normal appendix located. (Fig. 1.)

The appendix may radiate in any direction from its base or point of origin, although it is found to extend in certain directions much more frequently than in others.

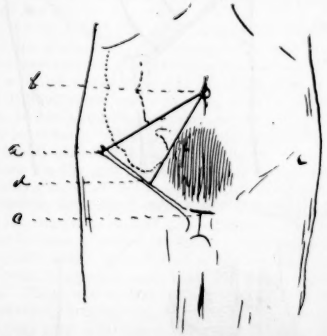

Fig. 3.—Shaded part represents location of exudate or abscess as determined by physical signs. All drawings are from actual cases.

If we examine the anatomic relations within this large circle, we will find that the space may be subdivided into five separate areas, each having distinct and well-defined boundaries. The appendix may be found in any one of these five areas, and when an abscess forms about the inflamed organ, it is the particular area in which the appendix is located which gives to the abscess or exudate its characteristic location and outline, which limits its extension in one direction and favors it in another, and which should guide us in the selection of the best point for incision and direct to some extent the technique of the operation.

These areas, arranged according to the relative frequency with which the normal appendix is found to occupy them, may be thus outlined:

1. Area—infra-mesenteric—Is the space bounded above by the mesentery of the lower end of the ileum and externally by the inner and lower border of the cecum. It is practically the southeast quadrant of the above described circle, and located within it we find the appendix in about 60 per cent. of the cases. The appendix may be superficially situated, approaching anteriorly or lie deeply on the posterior wall; it may extend directly inward, hugging the under surface of the mesentery at the ileum, or inward and downward, reaching often into the true pelvis. The mesentery above prevents the extension of abscesses in an upward direction, but gives to them a tendency to extend downward and to the left.

We may further subdivide abscesses in this area into three types: (*a*) Those occupying the true pelvis; (*b*) in the midst of loops of small intestine (meso-celiac type of Gerster); (*c*) superficially situated near base of appendix. (Internal type of Sonnenberg.)

The pelvic abscesses are limited in the male anteriorly by the bladder, posteriorly by the rectum and pelvic wall and above by the sigmoid and loops of small intestine. In the female they fill Douglas' culde-sac or occupy the ovarian region on one or both sides, where they are often with great difficulty differentiated from pelvic abscesses of tubal or ovarian origin. The danger of infecting the general cavity on opening these abscesses from above is very great, and the advisability of draining through the vagina in the female, as in other septic pelvic troubles, comes into serious consideration.

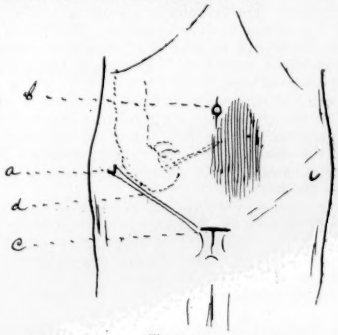

Figure 4.

The inter-intestinal abscesses (Figs. 3 and 4) are usually situated near the mid-line and are consequently best opened at this point. Adhesions may have occurred to the anterior parietal layer so that the abscess may be opened without entering the general cavity, or there may be no adhesions whatever so that the free peritoneal cavity must be traversed in order to reach the abscess. In the former case great care must be exercised in order not to open the bowel, and the greatest gentleness is necessary so as not to break down the protecting adhesions. When no adhesions exist, the dangers of the case are greatly increased. However well we may pack around with gauze, it is often impossible to prevent pus escaping into the general cavity, with a resulting fatal acute septic peritonitis. It is in those cases that the advisability of doing a *deux temps* operation is to be considered. If the patient's condition will permit of the delay, pack with iodoform gauze for twenty-four or forty-eight hours until adhesions form, then open gently without disturbing them. Should the appendix be found floating free in the abscess cavity it may be removed, but if it be firmly embedded in the exudate forming part of the abscess wall it should under no circumstances be torn out and removed, if by so

doing we endanger breaking into the general cavity, thus leading to general sepsis.

In the third subdivision the exudate usually comes to the surface, forming adhesions to the anterior abdominal wall, just internal to the cecum. (Fig. 5.) The abscess is limited externally by the cecum and internally by the loop of ileum which almost always covers over the end of the cecum and the omentum. They are usually best opened by a vertical incision over the inner border of the cecum. Care should be taken not to separate the loop of intestine internally, particularly at its lower angle, as pus then escapes at once into the pelvis. The appendix can nearly always be removed as it usually lies posteriorly or

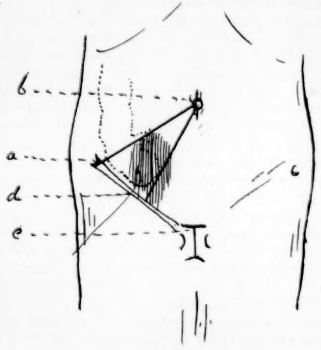

Figure 5.

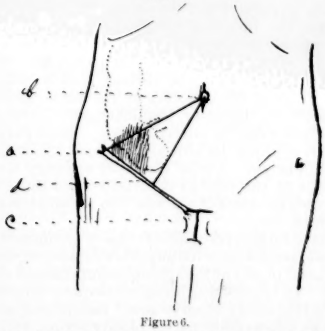

Figure 6.

anteriorly, and it can be done without disturbing the internal wall of exudate which protects the general cavity.

2. *Area—retro-cecal*—Appendix lies in the little pouch posterior to the cecum, more or less curved or folded upon itself or extending downward and outward. It is found here in about 23 per cent. of the cases.

Abscesses have the cecum in front, the same loops of small intestine internally, and the iliac fossa posteriorly and externally. They come to the surface along the outer half of Poupart's ligament. (Fig. 6.) They are best opened by an oblique incision parallel to the outer half of Poupart's ligament, coming down upon the outer border of the cecum, which should be raised up and turned inward. The appendix can nearly always be removed, unless it should be too firmly imbedded in the exudate forming the inner wall.

3. *Area—supra-mesenteric*—The appendix lies above the mesentery of the ilium and internal to the inner layer of the meso-colon. (Fig. 7.) Abscesses are prevented from descending into the pelvis by the mesentery; they are limited externally by the meso-colon and colon, and internally by agglutinated loops of small intestine. They have a tendency to spread upward toward the liver, and have ruptured into the duodenum and the gall-bladder. Adhesions to the anterior parietal peritoneum are the rule.

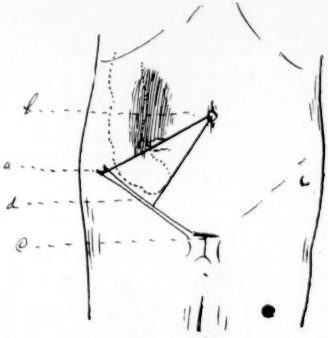

Figure 7.

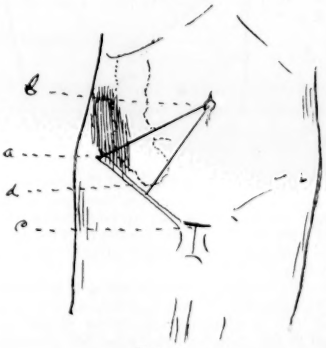

Figure 8.

These abscesses are best reached by an incision along the external border of the right rectus muscle, great care being taken not to break down the adhesions between the loops of small intestine to the inner side.

4. *Area—external*—Is the space between the outer border of the colon with its outer layer of meso-colon, and the external abdominal wall. The appendix may extend upward and outward into this space, its tip sometimes reaching nearly to the under surface of the liver.

Abscesses here are quite characteristically defined (Fig. 8), being limited internally by the meso-colon

and colon, which is usually adherent to the anterior abdominal wall, thus shutting off the general cavity, and externally by the parietal layer. They spread upward to the liver, or even between the liver and diaphragm, and have repeatedly ruptured into the pleura and even the bronchi. They may be reached by an oblique incision extending from above the crest of the ilium downward and inward, parallel to the outer third of Poupart's ligament; or, if the abscess is high up, by a longitudinal incision over its most prominent part, care being taken not to injure the ilio-hypogastric nerve. The appendix can nearly always be removed, as there is no danger in separating the adhesions about it of opening the general cavity.

5. *Area—retro-colonic or extra-peritoneal*—In the cellular space posterior to the colon between the two layers of the meso-colon. (Fig. 9.) Abscesses here are entirely extra-peritoneal. The colon is pushed forward. Pus may dissect upward about the kidney, producing a perinephritic abscess, or it may dissect downward beneath the iliac fascia and point below Poupart's ligament.

The incision in these cases should be an oblique one, similar to the one described under the fourth area, but extending pretty well above the crest of the ilium.

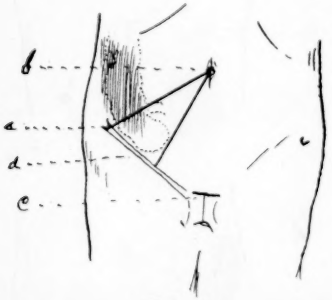

Figure 9.

If it be determined beforehand that the appendix is retro-colonic, the peritoneum need not be opened, but when reached, dissected up posteriorly until the abscess and appendix are reached. The appendix may be removed by this route without opening the peritoneum.

If the peritoneum be opened before it is determined that the appendix is retro-peritoneal, the posterior edge of the peritoneum should be raised up and stitched to the anterior edge, when we proceed as if the peritoneum had not been opened.

These five areas, having their distinct anatomic boundaries and relations, are what give to the abscesses their characteristic location, outline and direction of extension.

The particular direction in which the appendix and abscess lie in each concrete case must be determined by accurately outlining the mass by inspection, palpation and percussion, and in no case should a careful rectal examination be omitted. When the abscess is thus located, the best point for the incision becomes apparent and this should at all times, when possible, be made in a manner respecting the muscular layers and the direction of their fibers.

THE VALUE OF PUPILLARY CHANGE IN SPINAL AND BRAIN DIAGNOSES.

BY JAMES A. LYDSTON, M.D., PH.G.

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CHICAGO.

The intimate relationship between the brain, the spinal cord and the eye, leads us to infer that the pathologic processes implicating the eye should enable us to diagnosticate various morbid processes primarily asserting themselves in the spinal cord and brain. And while we possess certain data more or less positive in their character, among which pupillary change is prominently figured, we are not always able to define positively by the disturbed pupillary reflex the site of such pathologic processes. It seems, however, that an outline of the pupillary changes consequent upon spinal or brain lesion that are definite in character, should prove advantageous to the general practitioner as well as the ophthalmologist; consequently we will enumerate, as far as practicable, the diseases of the cord and brain with their accompanying pupillary changes which are conspicuously significant and explain their etiology. Since the pupil is nothing more than a circular opening in the iris, it follows that this structure is an active participant in cases involving pupillary changes; and as the iris is intimately associated with the sympathetic, it is not strange that brain and spinal diseases should be associated with pupillary changes. Thus spastic mydriasis is a condition which accompanies cerebral irritation arising from various causes; while a much more frequent type of mydriasis—paralytic mydriasis—due to paralysis of the oculo-motor fibers which innervate the intrinsic ocular muscles, namely, the ciliary muscle and sphincter pupillæ, which are usually both involved in oculo-motor paralysis. In this case the paralysis may be diffuse, that is, affecting several or all of the branches of the nerve, or it may be isolated in character, implicating the pupil or in conjunction with the ciliary muscle. Such paralysis occurs in syphilis, in chronic cerebral affections, or is toxic in origin. Under the latter category we note the effects of the various mydriatics and those cases of absorbed products of putrefaction styled ptomaines, septicemia, etc.

We have certain traumatic forms of accommodative paralysis, associated with pupillary dilatation, ascribable to local injury of the sphincter pupillæ and ciliary muscle. In contused injuries, consequent on concussion, we frequently observe small lacerations accompanied by extravasations of bloody serum, etc., into the muscular structure: while increased tension causes paralysis by reason of pressure upon the sensitive nerve filaments, and, if unrelieved, atrophic changes eventually supervene. Pupillary dilatation accompanying amaurosis is not dependent upon motor disturbances, but is rather a cessation of the physiologic pupillary reflex due to modified illumination.

With respect to myosis, or contraction of the pupil, we note that spastic myosis, so-called, occurs as one of the prodromal manifestations of meningitis; whereas, locally applied, the several myotic remedies of which eserin is the type, while pilocarpin ranks second, induce marked spastic myosis, while other poisons, such as chloral hydrate, opium, nicotin,

stramonium, etc., likewise induce pupillary contraction. And it is well to note here that paralytic myosis is a suggestive symptom of implication of the cervical sympathetic, paralytic in character, and is commonly noted in spinal lesion, especially tabes dorsalis. And it is in this connection that the so-called Argyll-Robertson phenomenon finds its most fitting application, *i. e.*, the pupil fails to react to light, while it reacts synchronously with accommodation and convergence. We must always remember that enlargement and contraction of the pupil do not perceptibly impair vision unless accompanied by accommodative paralysis. To Horner belongs the credit of having first outlined the symptomatic phenomena characteristic of sympathetic paralysis, and he notes the following:

1. Pupillary contraction due to paralysis of dilator fibers, which is determinable by shading the eye.

2. Narrowing of the palpebral fissure as a result of drooping of the upper lid, which in turn is due to a paralysis of the smooth muscular fibers in this situation, called the musculus palpebralis superior of Müller, innervated by the sympathetic.

3. The eyeball is perceptibly sunken and intraocular tension is lowered, while the fourth and most important sign is the notable fact of a variable fullness of the vessels on the two sides.

Thus, in recent cases of paralysis, the face is flushed and warmer on the paralyzed side, while the contrary obtains in the later stages; the paralyzed side being cooler, blanched, and devoid of sweat, which is readily determined by inspecting the sweat-band of the patient in question.

The underlying or predisposing causes of sympathetic paralysis are groupable as follows:

1. Traumatism, such as accidental injury and operation wounds implicating the nerve in the neck; while central lesions are at the bottom of a percentage of cases. Spinal cord lesions, *e. g.*, tabes and injury of the upper cervical portion of the cord, are likewise responsible in certain cases. Since pupillary contraction is dependent upon the sympathetic, which receives its pupillary fibers from the ciliospinal center of the cervical spinal cord, it follows that irritation of this center or of the cervical sympathetic induces pupillary dilatation, and its paralysis or division pupillary contraction; while the same is true of the oculo-motor nerve, *i. e.*, stimulation of the oculo-motor nerve causes pupillary contraction, its section or paralysis pupillary dilatation, and inasmuch as pupillary reaction is either reflex or associated, and if it be reflex the necessary impulse emanates from centripetal nerve channels extending to the iritic nerves, and if associated arises from the pupillary fibers of the oculo-motor nerve which are agitated simultaneously with other oculo-motor nerve fibers, it follows that, excluding toxic influence of whatever cause, any abnormal pupillary change arises from pathologic conditions involving either the oculomotor nucleus or centripetal nerve centers, intimately associated with the iritic fibers.

And since the nuclei of nerve fibers which act simultaneously, namely, the sphincter pupillæ, accommodative and convergence centers are closely related in the brain, being situated in the anterior extremity of the oculo-motor nucleus, it follows that any morbid process involving these centers will exhibit itself by abnormality of the pupillary reaction, combined possibly with disturbed activity (on part) of the extrinsic ocular muscles which preside over convergence, and in turn we can approximate the site of the pathologic process with comparative certainty by remembering the course of the fibers, emanating as they do from the oculo-motor nucleus, observing a downward course from the crus cerebri to the base of the brain, at which point they unite to form a single trunk opening at the anterior border of the pons varolii, extending thence through the cavernous sinus and superior orbital notch to the orbit. Total abolition of the functions of the sphincter pupillæ, convergence and accommodation always signifying total destruction of both motor oculi nuclei or their ramifications. The abducens and trochlear nerves which likewise are characterized by separate partial nuclei, after reaching the base of the brain, pass forward similarly to the oculo-motor nerve, extending through the cavernous sinus and superior orbital fissure into the orbit.

Paralysis of a single ocular muscle with but one exception—ptosis, which sometimes occurs in cortical disease—always indicates that the site of disease is below the intracerebral tracts, that is, the cerebral cortex, association centers and their connecting fibers. It is notable that in uremic amaurosis the pupillary reaction is intact, which points to the fact that the disturbance is located in the brain, *i. e.*, above the eye and optic nerve. Atrophy of the optic nerve accompanying tabes frequently announces itself by pupillary change which asserts itself by the Argyll-Robertson phenomenon, in which the pupil still reacts to convergence and accommodation, but not to light, and is usually contracted, which, in conjunction with the test of Westphal, *i. e.*, the absence of the tendo-patellar reflex and its bilateral character, constitute diagnostic signs in the early stage of many cases of tabes.

804 Champlain Building.

THE IMPORTANCE OF EARLY DIAGNOSIS IN SOME FORMS OF NERVOUS DISEASE.

Read in the Section on Neurology and Medical Jurisprudence, at the Forty-sixth Annual Meeting of the American Medical Association, at Baltimore, Md., May 7-10, 1895.

BY IRVING C. ROSSE, A.M., M.D., F.R.G.S.
WASHINGTON, D.C.

Only a few days since I was forcibly struck by the remark of one of my patients, now in the advanced stage of locomotor ataxia with progressive cortical changes, who tells me that on meeting his former physician he had refused his proffered hand, for the reason that he was one of several who for years had treated him for what they incorrectly took for rheumatism. However questionable the act may be as regards politeness, there can be no doubt of its import to the patient when looked at from a diagnostic view-point. Had the patient been treated by a skilled neurologist it is reasonable to infer that his condition would not be so lamentable as it is to-day.

I do not mention this incident in the way of faultfinding or unkind criticism of any one, but it seems hardly credible, in view of the numerous warnings from neurologists, that so many general practitioners who do not hesitate to recommend their patients to oculists, gynecologists or other specialists, should take a jump in the dark when a neurologic question is involved.

Some years ago, one of my efforts was a paper pre-

sented to the American Neurological Association at Long Branch, in which I called attention to the frequency with which chronic, inflammatory and degenerative affections of the spinal cord are incorrectly diagnosticated and treated as rheumatism, even by practitioners otherwise well informed. The observations therein mentioned, showing notable failure of diagnosis, consisted of cases examined for medico-legal reasons and each case was accompanied by more or less voluminous written testimony of physicians who have recorded such diagnoses as chronic rheumatism, rheumatism and heart disease, rheumatism and disease of the eyes, malarial poisoning, disease of the liver and spleen, sunstroke and resulting loss of sight, general prostration and debility, sciatica, and other vague pathologic generalities. The certificates of disability were written by medical men from widely distant parts of the United States, and by surgeons of the Army and Navy. Many of the patients in question have since died, and one having committed a criminal offense was, in my opinion, unjustly sentenced to penitentiary.

Being a frequent occurrence in my own experience, my mind is filled with recollections of tabetic material where the attending physician has taken refuge in such a generality as malaria, or more commonly, the effects of grippe. It is only necessary to relate a few examples by way of specification.

A short time since I was called in consultation to see a young man who for several years had been actively treated for malaria. Upon the advice of physicians he had taken much exercise, but growing worse, finally broke down on attempting to ride a bicycle. I found the poor fellow in an advanced stage of locomotor ataxia, with gastric crises and trophic change of the stomach. He lived but a short time.

The second case was that of a United States Senator, whose wife was highly incensed at my diagnosis, although it was afterward confirmed by two of the best neurologist in New York. During the last days of the Senator's illness he came under the care of a general practitioner who, to my surprise, tells me that he did not notice or examine for tabetic symptoms, and that the distinguished consultant he called in from Baltimore attributed most of the symptoms to the liver.

In the third case, of a woman under the care of a general practitioner who had come to the end of his therapeutic tether, I found the patient with an alcoholic history, and in the last stage of sclerotic tabes. On informing her husband of the hopeless character of the case, one of the numerous irregular practitioners who infest the National Capital was accordingly called in and proceeded to apply electricity, with which he claims to have cured twenty cases of locomotor ataxia. A few days later, in looking over a newspaper I noticed the death of the patient.

So far, indeed, has the notion of malaria been carried, that a few years ago a public man in Washington died of what was supposed to be malaria, contracted at the mouth of the Ganges river on a tour around the world, but which in reality turned out, at the necropsy, to be cancer of the stomach.

Occasionally, however, we find a man who has the scientific courage to say, "I don't know," and forthwith sends his patient to a neurologist, as was lately done in the case of a highly respectable woman suffering from paralysis of the extensor muscles of the left leg. She attributed this condition to a sprain, but the extension of the paralysis to the opposite leg, and my familiarity with the patient's habits, led me to suspect alcoholic neuritis. Under appropriate treatment she made a good recovery.

In another case, of a young girl who had arrived at the age of puberty, but had never menstruated, I was called to witness what was supposed to be an obscure case of nervous disease of ovarian origin. A slight strabismus with abdominal tenderness, and information from the attending nurse that the patient picked her nose and scratched her anus, exploded all notion of a "fancy" diagnosis and led to but one inference, namely, that of worms. Suggesting this to my professional confrére, he relucantly wrote a prescription for an anthelmintic. The morning following the administration of the medicine the intestinal parasite came away, the nervous symptoms rapidly disappeared and the patient made a good recovery.

In connection with this subject I may mention the case of a small boy who was brought to me from one of the adjoining counties. He had been under homeopathic treatment and had, on an average, ten epileptic seizures every day. The symptoms indicated worms. After appropriate treatment he was two weeks without a manifestation of epilepsy, which entirely disappeared, and I have no knowledge of its recurrence.

Quite different was the case of a comely young woman who consulted me several years ago for a variety of obscure nervous symptoms. Something in her face suggesting an unhappy love affair, I asked if she was suffering from anything of the kind, to which she answered in a hesitating and evasive way that led me to suspect her truthfulness. After some weeks of treatment she made but slow progress and I finally lost sight of her until a year afterward, when she came to my office and after much hesitancy and embarrassment told me that she had a confession to make, which was simply this: An elderly woman, a so-called Christian scientist, had been using her for purposes of tribaism, and this woman had obtained such an influence over her as to break up many social and domestic relations, besides ruining her health. As the woman had quitted Washington, my patient did not feel the restraining influence that formerly kept her from telling me this bit of personal history. I saw nothing more of my patient for several months, when happening to be waiting for a train in a railway station in Paris, I saw her with her former old associate in crime, from whom she probably could not stay away. I mention this case for the reason that one of the oldest practitioners in Washington remarked at the reading of a paper on sexual perversion, that he did not think the cases so common as I had reported, or he would have seen them. This is one of many cases that have since come under observation or have been reported to me by other physicians.

Much remains to be said on early diagnosis of that vast subject of epilepsy. There is no disputing the fact that a small proportion of cases of this protean affection may yield to early and careful treatment. I say protean in speaking of this terrible neurosis, for nothing could be more incongruous than the symptoms that go to make up a diagnosis in such apparently different attacks as that of epileptic vertigo, an attack of *grand mal*, or a manifestation of epileptiform mania.

However much may be said upon the feasibility of early diagnosis of epilepsy by a person having the

necessary technical requirements, its importance is a most serious matter in questions of forensic medicine, since the mistakes of a medical expert are more grave in their consequences than those of the ordinary practitioner.

In the last year or two, in the District of Columbia, we have had sad examples of questionable legal proceedings in cases of aphasia, paranoia, and epilepsy, in which irresponsible individuals, exhibiting a morbid degradation of a suffering organism and morality in ruins, have become the victims of judicial predilection and the sentiment of the hour.

The recent case of *Taylor*, an epileptic wife murderer, who also shot himself over the heart with suicidal intent, may be cited as a case in point. In this case, hereditary predisposition and domestic chagrin were predominant features. The father was a consumptive and the mother a paralytic, the significance of which is evident, if we accept recent statistics which show that in about 50 per cent. of epileptics there is a family history of some nervous or pulmonary trouble. Besides epilepsy the accused had a history of sunstroke; he had a scalp wound in the upper part of the frontal bone, and a depression from a horse-kick about the vertex of the skull; the pupils showed a want of responsiveness to light and accommodation, and ophthalmoscopic examination showed a choked disk. The pulse was 130, sitting; he was neurasthenic and tremulous; had exaggeration of the reflexes, and insomnia. Eroticism was another salient feature in the history, as the accused says that he missed copulation but thirty nights in five years. Nymphomania seems also to have prevailed on the other side of the house.

Viewing these facts and the proved infidelity of the wife, is it astonishing to any one, with even a small knowledge of psychiatry that the stress induced thereby should lead to impulsive and delirious acts of fury, such as suicidal and homicidal attempts, or even wife murder? At least ten instances of the latter crime committed by epileptics may be cited. In fact, it may be said that no epileptic can be a kind and loving husband, because of egotism, suspicion, irascibility, and a tendency to violent and instantaneous impulses; and it is no temerity of language to say that some of the greatest crimes that have shocked human nature have been committed by epileptics. It is not pretended that every epileptic is a candidate for insanity. Nor is it denied that history furnishes instances of great epileptics, as Cæsar, Mahomet, Peter the Great, and Napoleon. The alleged epilepsy of the last-named is, however, open to doubt. If not digressing, I may say that having lately spent some time in France my attention has been called to evidence that inclines to the belief that the assertion is utterly without foundation.

But, to come back to the case under consideration, in which I testified for the defense, the question of the prisoner's suicidal wound being brought in by the counsel, I was asked as to my experience in the collection of facts as to gunshot wounds, to which I answered that my experience was probably larger than that of any other man in the United States. As this statement may seem strange in coming from a neurologist, I must specify the facts upon which it is based. In addition to seeing numerous gunshot wounds in various military hospitals around Baltimore and Washington, during the Civil War, and in Europe after the Franco-Prussian campaign, I also handled, studied and described, thousands of specimens in the Army Medical Museum, where I was employed for several years as one of the collaborators of the surgical history of the war, and after that I examined for the Pension Office many thousand gunshot wounds of all kinds in applicants for invalid pension. In stating to the court the result of my examination of the prisoner, I said: "I came to the conclusion that he was a man of unsound mind and not sufficient master of his own actions to enable him to *choose* between right and wrong in the offense for which he stands indicted." The term "unsound mind," which appears to have caused the court considerable embarrassment, is herewith used advisedly, since it is used by the best medico-legal writers and also appears in the newest legal authority, the "English and American Encyclopædia of Law." Dr. William A. Hammond and others testified substantially to the same thing as myself. Yet an outsider hired by the government, whose chief qualification seems to be that he is an insane asylum superintendent in Pennsylvania, took the stand, and in testifying to the sanity of the accused, totally ignored the post-epileptic mental state and, among other amazing assertions, declared that there is no such thing as the clinical reality known as nocturnal epilepsy.

Testimony of a similar nature was given in the case of *Beam*, who murdered his stepdaughter. After about fifteen minutes' examination by the forementioned asylum superintendent, he was pronounced sane and handed over to the gallows, notwithstanding the fact that numerous lay witnesses swore to his insanity. As this unfortunate man was too poor to employ medical experts in the way of rebuttal, I was asked, as a matter of charity, to examine into his sanity with a view to securing a new trial. I learned from trustworthy sources that the father has been a senile dement for thirteen years in a public institution, and that the mother is a woman of irascible disposition, whose conduct has been erratic and suggestive of unsound mind. The history of the accused showed the turbulent career of a paranoiac, who was influenced by such delusions of religiosity as reading sermons to cattle and to the dead in unfrequented graveyards, and in the still crazier notion of building a stairway to the moon, and of reforming all the prostitutes of Baltimore, one of whom he married by way of practical application.

I found the prisoner of indifferent physical development with congenital deformity of the thorax, and syphilitic. In addition to physiological signs of degeneration, the mental stigmata were marked. There was not the slightest attempt at concealment or simulation, although the prisoner talked freely and somewhat incoherent. He had a number of immovable delusions, one as regards a cat, another as to untold wealth in a gold mine he had discovered in Maryland, a third in regard to hypnotism, and a fourth as to poison, and there was a tendency to obsession.

The main objection to granting a new trial on this case appears to hinge on the phrase "unsound mind," which though used advisedly in my affidavit seems to have a source of embarrassment to the court. The term, "unsoundness of mind," employed by the latest and best authorities both in forensic medicine and law, is in fact of legal adoption and one that is preferred by lawyers to the term insanity, which they have come to look upon with suspicion.

In the contested will case of Wallis vs. Suhring, 134 Ind. 447, in which unsoundness of mind and undue influence were alleged, the court instructed the jury adversely as to the term unsound mind; yet they found for the contestants, and on appeal the Supreme Court affirmed the judgment. Seemingly imbued with the "wild-beast theory of insanity" and the residuum of by-gone legal superstition, which not so long ago considered it right to hang the innocent old witches of Salem, the court, in attempting to be its own insanity expert, utterly ignored the more advanced teaching of science. Assuming these teachings to be true it is, therefore, not the perfection of reason to deny the meeting link between science and law, nor is it wise to reject their application to the purposes of justice.

Something of the same spirit seems to have tinctured the mind of the bench in the case of the paranoiac, *Schneider*, some medico-legal details of which case I have recorded elsewhere.[1] It is, however, only fair to the judges to say that they were largely influenced in this case by the unfortunate opinion of the medical experts employed by the government, who, in the light of subsequent events were shown to have been utterly mistaken.

The foregoing cases furnish striking instances of the non-recognition and disregard of medical expert evidence by the average citizen, and, at the same time, stand in bold relief as judicial inconsistencies when contrasted with the *Sickles* case or that of the Treasury Department murderess, *Mary Harris*, who, a short time since, married her senior counsel. In the District of Columbia, without a law to regulate the practice of medicine, charlatans and all sorts of mediocrities prevail to such an extent that the community at large show no discrimination between an educated medical man and a quack. Consequently, in public estimation, the opinion of the so-called doctor is just as good as that of the able and experienced. In Germany, where the pig-headed and brass-handed rule of blood and iron comes down heavily, they manage such matters differently. Owing to the civic spirit which pervades public and scientific men of that country, so much heed is given to medical intervention in matters of the kind under discussion, that of late we read of lust-murderers being declared insane, when we all know that such persons in the United States would not only meet with no mercy in court, but would, in all probability, become summary victims of a disorderly mob of lynchers.

Many persons, however, say in reply that any consideration shown the defective individuals of whom we speak is harmful to society, and that, as a class, they are best disposed of after the manner of mad-dogs, which we do not hesitate to kill on the ground of public safety. While such proceedings may obtain in American pioneer communities, a quarter of a century behind Europeans in realizing certain municipal and criminal problems, it is doubtful whether any argument can justify similar steps for the protection of society in these days of growing civilization and Christian enlightenment. The horror inspired by crime calls for just indignation; but the pity felt for atavistic degradation and neurotic constitution of the insane, instead of being false sentimentality is in accord with the more enlightened civic ideas now rapidly spreading in our country.

Aside from the personal responsibility affected by medical facts like the foregoing, the interpretation of many sensory, motor and trophic symptoms may bear upon questions of civil incapacity. Moreover, other instances of questionable diagnoses come under the observation of the neurologist in which his work encroaches upon that of the surgeon. Spasm or paralysis of the muscles are often erroneously named as causes of natural or structural defects, or mechanical injuries to the joints causing loss of motion, as witnessed in torticollis or in "angel-wing paralysis." Again, how many physicians overlook the apparently trivial and insidious prodromata of general paresis, the brain-fag, neurasthenia and polyuria of the overworked business man; and it may be asked, do ophthalmogists, as a rule, give due weight to the diagnostic importance of the condition of the eye-grounds in the matter of some chronic cerebro-spinal affections?

Although I have in this paper spoken of but a few nervous diseases, the idea I wish to convey relatively thereto applies forcibly to many other conditions. What shall we say of the late diagnosis of appendicitis, cirrhosis of the liver, desquamative nephritis, and other medical and surgical affections where life may have been prolonged or saved by an early diagnosis? In fact, neurologic science can not be divorced from questions of diagnosis, so intimate are its relations with all other branches of practical medicine.

My experience, in common with that of most neurologists, is that the diseases here mentioned are not recognized as early as they can and should be when due care is given to their semiosis. In the matter of forensic medicine the questions in which diseases of this class are concerned are simply those of clinical diagnosis; and if we wish to help justice to make the best disposal of the irresponsible criminal, according to the more humanistic ideals of the present day, or if we expect to arrest or cure such dismal and discouraging cases as those afforded by the decay of the nerve elements, we shall never regret the attention and painstaking that enable us to make an early diagnosis.

[1] See Virginia Medical Monthly, Feb., 1895, also JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, Feb. 2, 1895.

NOTES ON THE NATURE AND TREATMENT OF CHOREA BASED ON SEVENTY-FIVE CASES IN PRIVATE PRACTICE.

Read in the Section on Neurology and Medical Jurisprudence at the Forty-sixth Annual Meeting of the American Medical Association, at Baltimore, Md., May 7-10, 1895.

BY A. D. ROCKWELL, A.M., M.D.
NEW YORK.

If an apology is necessary for presenting for your consideration a subject so hackneyed as chorea, the nature of which so many able and careful observers have attempted to solve and about which discussion and theory have been worn threadbare, it is: 1, that any disease, the source of so much anxiety and distress as chorea, can not be discussed too frequently: 2, that my experience has been somewhat large and has been gleaned entirely in private and not in hospital practice, upon which nearly all considerations in regard to this subject are based; and 3, if I can not offer anything new in regard to medicinal or hygienic methods of treatment, I am in a position to speak with some authority and confidence upon the

methods and results of electrical treatment, a subject even yet in its relation to this disease too little understood by the profession in general and almost altogether ignored by both teachers and writers on nervous diseases. I have long desired to give the impressions of many years' experience in observing the course of chorea and treating its symptoms, and the invitation that I present before the Neurologic Section something pertaining both to neurology and electro-therapeutics, affords me the opportunity that I have often wished for.

Chorea has by common consent been put in that class of diseases that presents no constant detectable change in any of the structures of the body, and is therefore termed functional in character. It is, however, more than doubtful whether a functional disturbance, however slight and evanescent, can exist without corresponding disturbances in the nutrition of the nerve elements. Microscopic changes have, it is true, been occasionally found, but not with sufficient frequency to enable us to rely on morbid anatomy to account for the disease, and the nutritive changes that in all probability do take place are too subtle for detection and may perhaps ever remain conjectural. Age and sex, in their relation to chorea, tell us far more of its nature than all methods of post-mortem examination.

The fact that chorea is almost entirely confined to early childhood and youth and occurs with far greater frequency in girls than in boys—in the emotional period of life and mostly in the emotional sex—renders it probable that the disease is in the vast majority of instances purely functional, dependent upon disturbances or shock to the motor centers of the brain. To illustrate: I once had under my professional care a young girl suffering from what appeared to be a slight neuritis of the radial nerve. On one occasion she was suddenly asked a question in regard to certain facts which she desired to conceal. In her efforts to disguise any appearances of surprise her facial muscles immediately passed beyond her mental control, and for a few moments the localized movements exactly simulated the familiar examples of facial chorea. It was an excellent example of temporary chorea, having its source in a temporary disturbance in the cerebral convolutions.

Neurasthenia is a functional disease, and it may be either acute and temporary or chronic and permanent. Just as the fatigue and irritability of mind and body that accompany profound and concentrated mental and physical effort are dissipated by rest and sleep, so the familiar examples of lost muscular control following sudden emotional influences, disappear on the subsidence of the cause. In both cases we have to do with facts of cellular nutrition; in the one case with temporary exhaustion, in the other with temporary irritation.

Intensify and prolong the processes of cell exhaustion and cell irritability and we get in the one case true neurasthenia and in the other true chorea. Another reason for rejecting structural change as the causative factor of chorea, lies in the fact that so far as we have knowledge, there exists no structural changes of the nervous and muscular system that will in itself produce chorea. Embolism to which it has been ascribed produces, so far as we know, symptoms of a far different character. It is associated with head-pain, vertigo and nausea—at least at its outset—hemiplegia of varying degrees of severity, and when right-sided, with aphasia together with other disturbances of speech. Then it must be remembered, how serious are its sequelæ, how apt it is to recur and to what extent nutrition is impaired. The occasional presence of embolic particles found in fatal cases of chorea hardly offers sufficient basis for such a theory. But that chorea must be regarded as a disease of the central nervous system, either primary or secondary to peripheral irritation can hardly be questioned. As all movement, as well as all thought has its origin in the brain, it is inconceivable that disordered muscular movement such as characterizes chorea can depend upon peripheral influences alone. In deference to our inability to point out objective pathologic changes, we sometimes speak of the psychic origin of chorea, yet in the last analysis we fall back on disturbance of the motor cortex.

In a large proportion of choreic cases, especially among the poor, anemia exists, and in another large proportion of cases fright is the exciting cause. Sometime ago a child was brought to me suffering from "nervousness" and extreme anemia. I prescribed what seemed to be necessary and for a time saw no more of her. While engaged on this article the mother again returned with the child, suffering now from an acute and violent attack of chorea, the exciting cause of which was fright. These two elements of causation, fright, acting upon a nervous system weakened and irritable through its vitiated blood supply, seem to me to give great strength to the theory of malnutrition of the cortical ganglion cells as the seat and the efficient cause of chorea. The analogy existing between certain nervous diseases that are attended by no definite and positive vasomotor changes are interesting and suggestive. Influences, the same in kind that result in diabetes when acting on the nervous system of a man, result in hysteria when acting on the emotional nature of a woman, or in chorea when on the tender and susceptible nature of a child.

Conflicting as are the opinions relating to the pathology and the treatment of chorea, there are certain facts in regard to the disease upon which all experience agrees. Like Basedow's disease whose pathology is as doubtful as that of chorea, it occurs far more frequently in the female than in the male. In my own experience, its exciting cause in the majority of cases can be traced directly to fright or other emotional causes, and in this again it bears some resemblance to Basedow's disease. With increasing years the disease rapidly decreases in frequency and becomes far more intractable, and even dangerous to life.

Notwithstanding my belief based upon these seventy-five closely observed cases, that the majority are in their essential nature central—although neither organic nor structural in the ordinary acceptation of these terms—yet a few have seemed to me to depend upon reflex influences, both as exciting and continuing causes. Peripheral sensory irritants, such as a redundant prepuce with collection of smegma, intestinal worms and ocular defects have all within my own experience been the undoubted cause of chorea. In the case of a redundant prepuce, an operation performed by Dr. Charles McBurney, at my request, resulted in the prompt recovery of a case where the symptoms had been persistent for several months. In a second case, where I finally suspected worms to be the cause of persistent choreic symptoms in a boy

aged 8, a dose of santonin resulted in the expulsion of no less than ten of the common round worm, and all of considerable size. This patient also promptly recovered. In a third, a case of ocular defect, an operation by Dr. Geo. Stevens resulted in too prompt an alleviation of the symptoms to allow of any doubt as to its direct efficacy. But reflex influences are altogether exceptional, according to my experience, in the production of chorea.

Where the causes above enumerated exist once, in in connection with choreic symptoms, they occur a thousand times without any such connection. It is the pseudo-choreas, the various habit-spasms that seem to be most benefited by correcting the anomalies of the ocular muscles and errors of refraction, and not the ordinary true chorea of childhood.

Notwithstanding all the investigations of and the statistics offered by those who have written upon this subject, I have been unable to satisfy myself that between rheumatism or endocarditis and chorea, there exists any constantly direct relation as cause and effect. The frequency with which a soft systolic murmur is found associated with chorea must be admitted, and also the results of post-mortems showing endocarditis and the presence of vegetations on the cardiac valves, but these relations have been analyzed with sufficient thoroughness to leave little doubt but that they are mostly accidental, even if in certain statistical tables they are found with suggestive frequency. In epilepsy, in anemia, in the muscular relaxation associated with certain neurasthenic cases, we not infrequently detect a cardiac murmur, the same apparently as the ordinary choreic murmur. While these murmurs may be and probably are due in many, if not most cases, to nitral regurgitation, yet they speedily disappear with no permanent structural harm. The temporary defective action of the mitral valve is believed to be due to altered nutrition or innervation. Certainly, the functional derangement of the action of the valvular apparatus is sufficiently evidenced by the readiness with which the murmur disappears as the disease improves.

If rheumatism is the efficient cause of chorea through the action of its sequel, endocarditis, then it is hardly necessary to say that the endocarditis should precede the chorea. On the contrary, it precedes it only in a small proportion of cases when they are associated, and in a large number of cases no evidence of endocarditis can be found. As a reflex cause, endocarditis may occasionally be responsible for chorea, as are defects of the eye, or intestinal worms, or redundant prepuce; but, like these irritants, it may and does exist a thousand times without any relation to it whatever. Most of the cases that have come under my observation have been carefully examined for evidences of heart disease, and in more than one-half of them there could be found no murmur of any kind and in only a very small proportion was there any history of aches or pains that could possibly be attributed to rheumatism.

One of the strongest arguments against the rheumatic origin of chorea is the fact that, as related to boys, girls suffer from chorea in the ratio of three to one, while rheumatism affects boys far more frequently than girls. Of the fifteen among my own cases of chorea that gave a history of rheumatism, ten were boys and only five girls. These observations are very much in accord with those of Meyer[1], who, out of 121 cases, found that only 9 per cent. had rheumatism; 13 per cent. heart symptoms and 2 per cent. the two combined; and with those of Leroux[2], who, out of eighty cases of chorea found only five clear cases of rheumatism and fourteen with heart complications. Of these last, five were mitral lesions and nine simple anemic and extra cardiac souffles.

Much stress is often laid upon the degree of disturbance of the mental function in chorea. My observation of the disease as it occurs in children who are well cared for, both as to mind and body, is that there is seldom any mental defect. Sometimes a young child will seem dull without really being so, and the parents and friends of the unfortunate little patient will act along this false hypothesis to the child's detriment. In chorea, the muscular movements are not in harmony with the will. The child, knowing herself unable to give correct expression to thought and desire, manifests, in the presence of strangers especially, a distrust and timidity not in accord with an acute mental state, while the operation and condition of the mind as registered in the facial expression is observed and misinterpreted because of the constant facial deformity. The imperfect muscular coördination occasionally extends to the vocal apparatus, rendering the speech somewhat indistinct and jerky. In other cases the patient talks very well when once started. At first, the lips may be seen to move, but it is several seconds before there is any articulate sound. One of the brightest children I ever knew had this symptom and, for a time, was credited with being below the normal level mentally. There is a class of choreic cases very commonly met with, where the incoördination of movement is ordinarily slight, but when conscious of observation the muscular disturbance becomes exaggerated. There is another class where a contrary condition exists. The movements are greatest when the patient is at play and unconscious of observation, but by an effort of will the child can control these movements.

It is among patients of the first class that mental defects are most often thought to exist; these cases are, however, far less apt to be dull than those of the second class, and recover with greater rapidity. I do not find that ordinary chorea is distinctly or directly hereditary, but among the better classes, at least, it will be found that in an unusually large number of cases the child inherits a neurotic tendency. This neuropathic heredity is said to be in the proportion of about one-sixth, but in my own experience it is much greater. The theory advanced by Garrod that the rheumatic poison occasions a temporary overgrowth of connective tissue in the nerve centers, resulting in chorea, has little to recommend it, but the infectious theory about which so much has been said has points of strength both from an anatomic and a bacteriologic standpoint, since there is found in the nervous system a special bacillus pathogenic for microbes. Bacteriologic and experimental researches have been made by Pianese[3] in fifteen acute cases of chorea. In three of these cases a bacillus was isolated from the blood, and inoculation caused the appearance of the disease in dogs. In the opinion of this author, the theory of the infectious origin of chorea is far more satisfactory and complete than all other theories. Triboulet[4] has reported three cases

[1] Berliner Klinische Wochenschrift, July 4, 1890.
[2] Revue Mensuelle des Maladies de l'enfance, Paris, June, 1890.
[3] Reforma Medica, Naples, July 20, 1894.
[4] Revue Mensuelle des Maladies de l'enfance, Paris, Dec. 1891.

of secondary infection by the staphylococcus in chorea, and gives it as his opinion that, in four-fifths of the cases, infection could be traced as the causative factor of the nervous trouble.[5]

But however suggestive the various theories and investigations as to the nature of chorea, nothing is more certain than that no constant pathologic change is associated with it, and we must fall back upon the theory of its neurotic functional origin. Its almost benign nature and tendency to recover is the strongest evidence that it can depend upon no serious or persistent pathologic change.

As regards the therapeutics of chorea there is much to be said, both from the standpoint of those who believe in the necessity and efficacy of therapeutic measures, and from that of others who look upon it as practically a self-limited disease which recovers as readily without as with treatment. Self-limited it is not, in the sense that we speak of the self-limitation of scarlet fever or measles.

We can not abort or very much, if at all, cut short the course of these diseases, but that measures can be adopted for the relief of associated symptoms or the arrest of complications is admitted. We can, however, not only very markedly alleviate the severity of choreic disturbances in aggravated cases, but can do what can not be done in the so-called self-limited diseases—shorten the duration of the disease. In regard to certain hygienic and sanitary methods of dealing with chorea there is very little diversity of opinion. It is agreed that rest is a most important factor in most cases, and in those more serious the rest should be complete and continuous. In several of these severer cases, where arms and legs and facial muscles are in constant motion, I have noted marked alleviation of the symptoms follow prolonged rest in bed.

In the less severe cases, moderate exercise in the open air is allowable and beneficial, but in no case should a child with chorea be allowed to engage in rough and tumble sports. Sleep, and much of it, is essential, and when it is greatly disturbed we are justified in aiding it by hypnotic measures. The food should be nourishing but simple. If the appetite be poor, it is allowable and even desirable to tempt it by daintily prepared food of judicious selection, but to attempt to stimulate appetite by artificial means is even more unjustifiable in the case of a child than in that of an adult. Far more harm than good is done by forcing food, when nature cries out against it.

The reflex effects of ether spray to the spine, or better still perhaps, of the chlorid of ethyl has been highly recommended and my own personal experience with it has, on the whole, been favorable. While in some cases it may appear to do no good it can certainly do no harm, and occasionally I have seen unmistakable benefit follow its use.

To enumerate all the internal remedies that have from time to time been advocated almost as specifics in the treatment of this disease, would only serve to indicate the limited data of experience upon which opinions are based. Few of them have stood the test of time and trial, and the general opinion is that medicinal treatment is extremely unsatisfactory. By this, I do not mean to say that in individual cases we may not be reasonably sure of the efficacy of certain remedies in alleviating symptoms and shortening the duration of the disease. There are, indeed, well authenticated cases of long duration that have persistently resisted various accredited methods of treatment, and finally recovered promptly upon the adoption of some other old or some new and untried remedy.

A notable illustration of this is related in Reynold's "System of Medicine," where a distressing choreic affection of the muscles of the neck had existed for nine years, defying all measures for its relief. Hypodermic injections of arsenic were attempted with almost immediate relief and final recovery. But I would say that there is no consensus of opinion as to which of the many drugs used is the most effective. Arsenic has undoubtedly the preference, but proves too often absolutely inert. There can be no question, for example, of the authenticity of the case just alluded to, and, encouraged by the success in that instance, I thought to duplicate in an obstinate case somewhat similar in character, by the same method of treatment, but without the slightest result.

Now, although I have from time to time tested nearly all the well-recognized remedies in the treatment of chorea, yet there is one remedy that I have used with more or less persistency in almost every case, and that is electricity. I am not so credulous as to suppose it to be curative or even markedly beneficial in every case. Occasionally, on the contrary, it has seemed to be contra-indicated, although long experience inclines me to the belief that this seeming susceptibility to the current is due more to a failure to correctly differentiate in the selection of the kind of electricity used than to any adverse idiosyncrasy present.

In the light of my own personal experience in the treatment of chorea, the opinion expressed more than a quarter of a century ago by a distinguished physician is of much interest. "Electricity," he says, "is another agent which requires a passing mention in this place, though all that can be said respecting it is, that as yet there appears to be little or no reason for placing any confidence in it as a means of treatment. Whether this will always be the case, whether there are not modes of using electricity which will have the effect of quieting choreic and analogous movements, remains to be seen. I suspect that there are such modes, and that they will be beneficial, but I have not yet the facts to justify the expression of a belief on the subject."[6]

Electricity benefits chorea on the same principle that it benefits neurasthenia or hysteria and many other functional nervous diseases, because of that indirect improvement in nervous force which is a part and a result of the general improvement of nutrition. While electricity is neither life nor nerve force, it aids in sustaining both life and nerve force, as do light and heat; not by direct transformation, but indirectly through its influence over nutrition. This influence over nutrition, together with musculo-sedative effects, are brought about in greater or less degree by various methods of electrization, by general faradization, especially with the high tension coil, central galvanization, static electrification and even by peripheral galvanization. To obtain temporary musculo-sedative effects, there is no method that equals the depolarizing method of central and peripheral galvanization, by which is meant the elimination of either one or the other pole. In this way the neutral point is thrown outside the body, and the part

[5] These de la Faculte de Paris.

[6] C. B. Radcliff, M.D., F.R.C.P.: On Chorea, 1868.

or parts brought under the influence of either the negative or positive pole alone as desired. Static electricity (positive) is also sometimes useful in chorea in calming nervous excitement and as an aid to nutrition.

But the two methods that I have found, on the whole, to be the most effective in the treatment of chorea are central galvanization and general faradization. These two methods properly differentiated and used either alone or in alternation, according to the indications in each individual case, are capable of doing much, not only in alleviating the violence of the choreic movements, but in shortening the duration of the disease.

A somewhat useful point in the way of differential indication for the use of the two currents and the two methods of application, which has been forced upon me by repeated observation, is the following: For children of full habits and in that excellent condition of general health which we not infrequently see among the victims of chorea, the galvanic current is to be preferred. For those, on the contrary, who are weak and anemic, with impaired nutrition, the faradic current is far more grateful, and is followed by better results, both immediate and permanent.

EPILEPSY CURED BY TENOTOMY OF THE OCULAR MUSCLES.

Read in the Section on Neurology, and Medical Jurisprudence at the Forty-sixth Annual Meeting of the American Medical Association, at Baltimore, Md., May 7–10, 1895.

BY WALTER B JOHNSON, M.D.

PATERSON, N. J.

J. H. H., 23 years old, consulted the writer on Sept. 5, 1889, stating that he suffered from a very peculiar form of disease of the nervous system for which he had been examined and treated during the past two years by a large number of prominent physicians. He was in good physical condition, attended to his business as a salesman regularly, and had no discomfort, except slight headache, until the attacks for which he wished treatment came on, two years ago; since that time, at intervals varying from two weeks to two months, he had had attacks, the onset of which was a violent headache coming on suddenly and without any premonition and followed by loss of all conscious mental action. The patient had no recollection, when recovering from the attack, of anything except the intial headache. The time during which he remained in the state of conscious mental inactivity varied from two to five days; during this time he would, if the attack seized him on the street, have been able to care for himself, as in such cases he invariably had sufficient money remaining to indicate the expenditure of enough only to have paid expenses during the time which was a blank to him. On returning to conscious mental activity he generally, upon awaking in the morning, found himself in some hotel in the city which he had not been accustomed to frequent. If the attack seized him at home the improvement in the headache, which occurred generally in two or three hours, was followed by a profound sleep which lasted until the following day, or in extreme cases, two days, the headache frequently returning on the morning of the second day. When the stupor passed away he was able to resume his work as usual.

The physicians consulted by him differed in opinion regarding the nature of the attack, Dr. A. L. Loomis and the major portion diagnosing the disease epilepsy, while others considered it neurotic and only epileptiform in character.

Upon the recommendation of his physician, he concluded to consult further with a view to excluding any abnormal ocular condition as an etiologic factor in the production of his disorder. He applied for treatment in September, 1889. The case was of such marked interest that a consultation was considered advisable, and the several consultants reported the details of their examinations as follows:

Dr. Herman Knapp, New York: Slight dynamic inversion not verified with prisms for near.

Dr. David Webster, New York: R., 25 D. C. ax. 90°; esophoria 2° in acc. L., 25 D. sph.; exophoria 20°; abduction 5°. Under atropin, R., 50 D. C. ax. 90° c, 0.50 D. c. ax. 180°. L., 0.25 D. sph.

Dr. Geo. T. Stevens, New York, before and after atropin: R., 0.75 D. C. ax. 180; esophoria, 5°. L., 0.75 D. C. ax. 180; abduction 2°, later 0°.

Homonymous diplopia. The result of the examination of the writer was: R. V., 20–30 — 20–15 1. D. c ax. 180. L. V., 20–15 — 20–15 w. 0.75 D. sph.

With this correction, the lines upon the test chart for astigmatism were all of an equal density and thickness, the vision normal. Esophoria 5°; abduction 5°.

Homonymous diplopia at distance. The diplopia was not present at the near point, either with or without the correcting glasses, which were ordered and the patient directed to wear them continuously. R., 1 D. C. ax. 180. L., 0.75 sph.

For some time after the glasses were prescribed and worn the patient was decidedly improved, his general condition was much better and he had none of the attacks previously described. Finally, the primary effect of the glasses passed away and the epileptic seizures returned with as much frequency and force as previously existed. The partial tenotomy of the internal recti muscles advised by Dr. Geo. T. Stevens was then performed. The eyes were tested immediately after the tenotomy and showed a slight degree of exophoria. The patient was directed to wear his glasses continuously and report. He remained in the city for two months, during which time there was no return of the attacks herein described; although he at times suffered from headache, he had none resembling those which occurred at the onset of an epileptic seizure, nor any stupor or loss of conscious mental activity following.

April 23, 1895. In a letter written from his present home in Chicago, he states that he never has had any attacks of epilepsy since the last record, and is a different person from the one I knew in this city.

A RETROSPECTIVE VIEW OF THE TREATMENT OF HEMORRHOIDS.

BY N. H. HENDERSON, M.D.

SURGEON LAKESIDE HOSPITAL, CHICAGO.

It is only within the past few years that diseases of the rectum have received the attention to which they are entitled. Until about twenty years ago the only possible source of relief from hemorrhoids was the clamp and cautery or the ligature. To attempt any surgical operation was considered very dangerous, and, in fact, we have evidence of many cases where fatal hemorrhage was the result of surgical procedure. Surgeons approached the field with timidity, and during our college course instruction pertaining to diseases of the rectum were the exception, and not rule, and were mainly confined to prescriptions for some palliative ointment, with no assurance, nor even expectation of cure. It is an acknowledged fact that the first step forward in the treatment of hemorrhoids was the hypodermic injection of carbolic acid, or any styptic that we saw fit to employ. The regular practitioner was slow to accept this innovation, owing to its origin in the hands of the itinerant, but the success of the measure at length compelled the recognition of the profession. For at least eighteen years my associate, Dr. E. H. Dorland, has treated hemorrhoids by the method of injection and continues the practice in suitable cases up to the present date. The next step toward reformation was the Whitehead operation. Then Dr. E. H. Pratt reversed the "Whitehead" and gave it prominence under the name of the "American." To recapitulate, we have the clamp and cautery, the ligature, the Whitehead and the American, to which I wish to add the operation described by me in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION of Feb. 23, 1895. A brief notice of the above operations may at least en-

able the inexperienced operator to decide which he wishes to employ. The clamp and cautery are entirely unsatisfactory, because you can not make a complete section of the diseased area, consequently it is but a few months, or years at best, until your patient returns to you suffering with hemorrhoids and the operation must be repeated. Some patients will submit to the ligature, but if for no other reason than that the ligature is unscientific, unsurgical, uncleanly and one of the greatest sources of infection possible in this class of work, we are not, nor have we ever been, justified in using; but the results for permanency (if the patient survives) are better than those of the clamp and cautery. The hypodermic injection is a vastly more satisfactory procedure; I have employed it hundreds of times, and in a certain class of cases I seldom fail to obtain the most gratifying results. A recent investigation of cases treated in this way by Dr. Dorland and myself, covering a period of eighteen years, demonstrates that of 1,800 cases treated by injection of a styptic, only about 15 per cent. have suffered any return of the trouble. As for the Whitehead and American operations, to mutilate unnecessarily any part of the human anatomy is something to be regretted, if not by the physician, at least by the patient. In dissecting off the pile-bearing inch together with the integument at the verge of the anus, laying bare the sphincter ani, dragging down the loosened bowel and stitching it to the integument, we bury all the delicate nerve fibers that impart sensation to the sphincter beneath the bowel, which, being out of its normal location, can not and will not replace the original tissues. Those having been submitted to these operations, have, I say without exception, a clumsy rectum, nearly devoid of sensation. In cases where union between bowel and skin is complete there is a band of cicatricial tissue, which feels to the touch like a wire ring, and which completely encircles the anus and sadly interferes with the functions of the sphincter. Again, we meet with cases where, having encroached too freely upon the integument, the operator has dragged the bowel down and out to repair the loss, to the end that the patient goes through life with his clothing rubbing against a portion of his anatomy which nature never designed to be so exposed. But I must repeat that the greatest and most serious objection to these operations is burying the terminal nerve fibers of the sphincter beneath a part of the bowel which is almost devoid of sensation. I am speaking from personal experience, having employed all of the methods mentioned, and I am not moved to these remarks by a personal motive alone, but hope that I have been able to recommend something better. What I should recommend as an ideal treatment for hemorrhoids is hypodermic injection, where the patient can not go to a hospital; but where hospital care is not out of the question, I would advise the operation described in the above-mentioned journal. I have made this operation no less than eighty-seven times, and in no case have I been disappointed in the result, either from stricture or loss of sensation, nor have I failed to obtain a complete restoration of the normal mucous membrane. In three of the cases I failed to get the posterior incision (which was original with Dr. Dorland) quite deep enough, the result of which was rather more contraction than I anticipated, but not sufficient to materially interfere with the normal function of the sphincter.

NEW INSTRUMENTS.

INSTRUMENT CASE, STERILIZER, SPONGE BASINS AND TRAYS COMBINED.

BY E. C. DUDLEY, M.D.

PROFESSOR OF GYNECOLOGY, NORTHWESTERN UNIVERSITY MEDICAL SCHOOL; GYNECOLOGIST TO ST. LUKE'S HOSPITAL, CHICAGO.

The apparatus herein described is designed to lighten the burden and add to the safety of surgical work in private houses, especially in the country. From an experience of about two years in its use, the author offers it with confidence in place of the septic instrument bags, the unwieldly sterilizer and the cumbersome trays and sponge basins which make up the usual *impedimenta* of surgical practice outside of hospitals. The apparatus fulfills the requirements, first, of an aseptic instrument case; second, of a steam sterilizer; third, of instrument trays and sponge basins. It consists of two rectangular sterilizers made of copper, nickel plated, in which may be packed all instruments and other appliances requisite for an abdominal section, or for any other ordinary surgical operation. Its component parts may further be used separately as pans, sponge basins and trays. The whole outfit, inclosed in a washable canvas cover,

FIGURE 1.

is 16 inches long, 9 inches wide, 12 inches high, and when packed ready for an operation weighs about 25 pounds. (See Fig. 1.) This canvas-covered instrument case contains a complete set of instruments, towels, sponges, ligatures, sutures, dressings, aprons, nail-brushes, soap, ether, chloroform, alcohol, antiseptic drugs, rubber sheet, douche bag, etc. The equipment is adapted for work anywhere. It especially solves the problem of septic surgery outside of hospitals, whether at the house of the prince or of the pauper.

Fig. 2 represents the two rectangular copper boxes as they appear under steam when used as sterilizers. Observe that each sterilizer is supplied with four legs, which may be folded against the sides of the box when the box is not in use as a sterilizer. Each box contains two gauze-wire trays, as shown through the broken side of the sterilizer in the right hand cut of Fig. 2. The lower tray is one inch above the bottom of the sterilizer and contains instruments. The upper tray, resting upon the lower, contains towels, dressings, ligatures, etc. The space of one inch between the bottom of the lower tray and the bottom of the sterilizer that is below line A B, Fig. 2, is filled with sterilized water. The small trays D and G are

filled with burning alcohol. These trays are set upon saucers to prevent burning the table-top. The burning alcohol converts the water into steam, which sterilizes the contents of the wire-gauze trays. One of the two detachable handles resting on the table between the two trays may be used to put out the flame by lifting the small alcohol tray in contact with the bottom of the sterilizer. These detachable handles are also designed for use in separating the different parts of the sterilizers after the sterilization is complete.

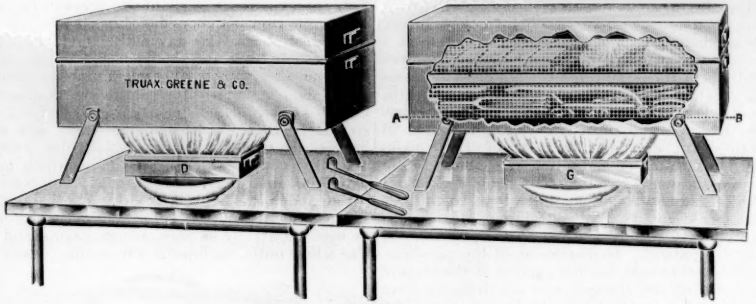

FIGURE 2.

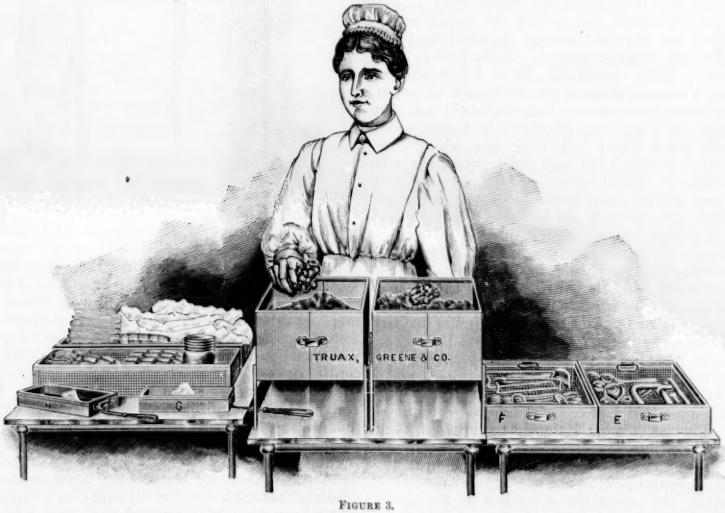

FIGURE 3.

Finally, the several parts of this apparatus may be broken up into sponge basins, pans and trays. The two large copper boxes become sponge basins. The two top covers become trays, holding sterilized water, inside of which the two gauze-wire trays containing the instruments are placed. (See Fig. 3, F and E.)

These gauze trays may be lifted out and placed in the covers without handling the sterilized instruments before the operation. The other two gauze trays to the left of the sponge basin (Fig. 3) hold the towels, gauze sponges, dressings, etc., which have been sterilized in them. The two small, square, shallow cups which contained the alcohol now become trays for needles, ligatures and other small appliances. (See Fig. 3, H and G.) Observe that this sterilizer is quite as well adapted for sterilization by boiling water as by steam. After the apparatus has been under steam for thirty minutes, especially if this process has been repeated three times on consecutive days, not only its contents, but also its various parts which are to be used as sponge basins and trays are thoroughly sterilized. Each member of the apparatus is supplied with one or more slots or rings, into which fit the detachable metallic handles already mentioned. These handles are useful to separate the sterilizer into its several parts while hot, and to avoid unnecessary handling. After an operation, even upon a septic case, all the parts of the apparatus may be washed and then sterilized by boiling in a large washboiler. The boiling water should contain 2 per cent. of carbonate of soda.

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SATURDAY, DECEMBER 21, 1895.

THE RE-ASSEMBLING OF SCHOOLS.

The health authorities of our Northern cities where diphtheria is prevalent could do a great deal of good by causing an examination to be made of the throats of children in the public schools at the opening session after the holidays.

Children found with commencing sore throats should be returned to their homes to be placed under the care and surveillance of a physician, and thus one of the great causes of the propagation of diphtheria removed.

It is well known that during the holiday season many of the ordinary restraints are removed, and household isolation of the sick is but imperfectly maintained. The examination suggested would not only detect suspects, but cases of actually advanced disease when found might have the exudate examined twenty-four hours earlier than would be the case where the usual custom prevails of waiting until the general and local symptoms were fully developed.

If we are ever to stamp out diphtheria, it must be by preventive measures of the sort indicated, not by reliance on curative therapeutics. The alleged brilliant results of serum-therapy should not blind the eyes of the people or the profession to the greater triumphs of applied hygiene.

DR. HAROLD C. ERNST says: [1]

"The disease was at its highest at the beginning of the systematic use of the bacteriologic diagnosis and inspection of schools in December, 1894. From that time, month by month, there was a steady fall, sharper than occurred in previous years, until the slight rise that apparently always appears in May, just before the schools are closed for the summer.

"Of the inspection of schools it may be said, that it has happened more than once that a child has been sent home for a slight sore throat, and that cultures have shown the presence of virulent bacilli from one to three days before the clinical diagnosis of diphtheria was in any way justifiable."

We do not concur, however, with DR. ERNST's further view that this state of facts renders "cultural diagnosis" more advisable as a matter of routine. On the contrary, the direct attack on the bacillus, as recommended by LENNOX BROWNE, would seem in every way safer and much more effective.

However, whether one worships the new-born serum-therapy; views it with skepticism, or even with distrust, there can be but one opinion as to the propriety of prevention of the disease by means of frequently repeated medical inspection of the schools, early diagnosis and prompt treatment.

Let the School Boards and the health officers harmoniously proceed in this work, and not only will the closing of schools be prevented, but the disease itself be circumscribed in its devastations, if not in time absolutely stamped out.

[1] Medical Communications of the Massachusetts Medical Society, Vol. XVI, No. III, 1895, p. 720.

THE EVOLUTION OF OUR KNOWLEDGE OF TYPHOID FEVER.

Before the discovery of the pathogenic microbe, typhoid fever, called also dothinenteritis (Trousseau), continued fever, etc., was characterized: Anatomically, by specific lesions in the small intestine, especially in PEYER's patches, with concomitant changes in the mesenteric glands and the spleen; clinically, by continued fever of a definite type, by intestinal and nervous symptoms, by splenic tumefaction and a discrete eruption of lenticular rose-colored spots.[1]

It seems very probable that this disease was known to the older authors, but it is very difficult when studying the epidemics of the time to clearly distinguish it amidst the chaos of pyrexias belonging to typhoid, to typhus and to malaria. This confusion lasted for a long time and the writings of FRACASTOR, BAILLOU, SPIGELIUS, SYDENHAM and WILLIS give but vague and unsatisfactory allusions.

In 1739 HUXHAM, in describing a disease which he called "slow nervous fever" gave the first clinical differentiation of the disease. Very soon the epidemics of Lausanne (1754–5) and of Göttingen (1760–1) furnished the opportunity for new observations, and the descriptions of BORSIERI (1785) and of STOLL became more and more precise. About this time the pyretologists, with their innumerable divisions, observed the question temporarily. For instance, the symptomatic classification adopted by

[1] Legry, L' Union Medicale, 1895, No. 37.

PINEL (1798)in his "Nosographie des Fievres Essentielles," obliges one to hunt through four or five chapters to find a complete account of the disease.

However, pathologic anatomy threw fresh light on the subject, and PROST (1802) and PETIT and SERRES described the intestinal lesions in different stages of the disease in detail. These authors were soon followed by CRUVEILHIER, ANDRAL and BRETONNEAU. Thus material was accumulating both from clinical observations and anatomic findings to establish the autonomy of typhoid fever and mark its place in nosology.

In 1829 LOUIS[2] gave a full account of the symptoms and morbid anatomy of the disease under consideration, and gave it the name of "fièvre typhoïde," which was adopted shortly after by CHOMEL and is now classic. The natural history of this disease being fixed by narrow boundaries, the malady was defined by its symptomatology and by its anatomic lesions. The physicians of the time were free to occupy themselves with questions of pathogeny and etiology with great profit to its therapeutics and prophylaxis. Let us see the changes of opinion before the question of etiology was fixed on its present firm basis.

The first important theory concerning etiology was that of contagion. Affirmed by LEURET (1828), BRETONEAU (1829), GENDRON (1834), it nevertheless had numerous opponents, and CHOMEL, ANDRAL and LOUIS, after long discussions on the subject, rejected it completely. In 1849, though, the memoirs of PIEDVACHE furnished proof positive of the contagious nature of the disease.

The discrepancies between the various authors may be explained by the different conditions experienced by the observers. For instance, this phase of the question is nearly impossible to discover in large cities, while in small places it is very much in evidence. Thus FORGET says: "I have denied the possibility of contagion until a stay in the country has shown me beyond question that typhoid fever may affect persons living near the patients."

The possibility of contagion alone did not seem to solve the question entirely, for many practitioners, while admitting contagion, noticed facts which led them to believe we might also have an autochthonous spontaneous origin of the fever. The pythogenic theory of MURCHISON (1858) is the most positive expression of this view. According to this author the infectious material may come from any putrefying animal matter whatever. "The disease may arise independently of any former case by fermentation of fecal matters, and perhaps in fermentation of other organic matters."

BUDD, on the contrary, a champion of the specific nature of this disease, maintained (1856–73) that every case of typhoid fever is the product of some former case. A forerunner of later-day bacteriologists, he claimed that the morbid principle was eliminated with the diarrheal discharges, which disseminated the contagion to a distance and impregnated the soil. Its diffusion is such, he said, that one patient may infect an entire town if the dejecta get into the wells. He also showed that transmissions may occur through the air.

PETTENKOFER'S famous theory on the oscillations of the ground water (1854-5), which was so much in vogue in Germany at one time, does not seem to make much use of the facts concerning pollution of water in fecal emanations. I do not know the cause of the disease, says this author, but believe I can connect it with the variations in the level of the ground water in wells. These variations allow the subterranean waters to moisten the soil, and on retiring leave it damp. It is when it is slightly moistened that it becomes dangerous. Too much dryness of the soil or too much moisture prevent the development of the disease. The new adaptation of this theory to micro-biological views does not seem to be any more convincing, and the doctrine of maturation of germs regaining their virulence in moist soil has not prevailed against that of transmission by potable water.

Hence we have two great currents of opinion in the scientific world. Some, with MURCHISON, admit the production of typhoid fever *de novo*. "It is the despised spontaneity of the living organism," said PROFESSOR CHAUFFARD, at the Paris Academy of Medicine in 1877, "which dominates all the etiology and all the pathogeny of typhoid fever." STICH was one of the first to give an interpretation of the spontaneous theory by supposing that every individual carries materials for putrid intoxication in his intestine, which are constantly neutralized in the normal condition, but which under certain circumstances cause typhoid infection. This was the opinion of PROFESSOR PETER also, who believed that the disease was manufactured by the patient himself, that autotyphisation was nothing but the results of retained waste matters in an exhausted organism.

The opposite school, led by BUDD, believed, as we have seen in the specific nature of the disease, that every case arises from some previous case. The discovery of the EBERTH-GAFFKY bacillus greatly facilitated the solution of the problem.

EBERTH in 1880 was enabled, by using new coloring methods, to determine some of the morphological characters of the bacillus. However, some doubts still remained as to its specific nature, notwithstanding the confirmatory observations of KOCH, MEYER, FRIEDLANDER and LETZERICK. The discovery was completed by GAFFKY in 1884, who, by using new solid media, was able to isolate the microbe and

[2] "Rech. sur la mal. connue sous les noms de gastro-enterite, fièvre putride," etc.

study the form of the colonies, etc., on gelatine, potato and other materials.

So, from the vague theories and fanciful discussions of the humoralists and the pyretologists of olden times, we arrive at our modern conception of typhoid fever, which CHANTEMESSE defines as a general disease which is produced by the reaction of an organism invaded by the bacillus typhi-abdominalis.

THE CAUSES OF OLD AGE.

A few years ago a pseudo-scientific paragraph was traveling through the public press stating that an Italian physician had succeeded in detecting and cultivating the bacillus of old age—the cause of senile decay. As a skit at the microbic theories of disease then just achieving the popularity they have since held, it had its day and was soon forgotten; and one would not wish to revive it except as a reminiscence. It has its suggestions, however, of a theory to account for some of the symptoms of old age that may be not altogether unrelated to the truth, though they are at best merely suggestions and nothing more.

There is hardly any fact that is constantly before our observation, and yet is more incomprehensible than the reality of decay and death. When SIR THOMAS BROWNE described his life as "a miracle of thirty years" he expressed a truth, but not a greater one than was to be that of his death. Why the animal organism under perfectly normal conditions should be steadily on the up-grade to a certain point, and from there as steadily on the decline till its final extinction is a question that no one can answer with certainty—we can only speculate. We can assume, it is true, that the vital heredity of the bioplasm, after a certain reproductive period, is transferred to another generation; that the germ plasm only is immortal, while the organism in general, without this invigorating principle or with it undeveloped or exhausted, naturally and gradually tends to its ultimate decline and death.

According to this theory we would expect gradual decay to begin after the cessation of the active reproductive period, and this falls in very readily with certain physiological facts and also with some therapeutic notions that have had a limited vogue, such, for example, as the comparatively recent one advanced by BROWN-SEQUARD of the benefits from the testicular extract. There are, however, serious objections to the acceptance of the continuity of the germ plasm, and at best it can only be admitted as a rather captivating hypothesis, that may be true but is not a demonstrated scientific fact.

There is another possibility that may be invoked to account for senile decay that is, it is true, partly included in the foregoing, but which may perhaps have sufficient importance to stand alone as a factor. Our existence is a perpetual compromise between the contending influences that tend to growth or decay. Bichat defined life as "the sum of the influences that resist death," and many have since thought it would be hard to improve upon this rather circular definition. All our lives we are enveloped in unfavorable conditions; we carry the germs of disease always with us, only waiting for a favorable opportunity, and our system is itself constantly manufacturing and disposing of poisons that are, in themselves, capable of destroying life should by any accident its functions seriously fail in certain important particulars. These functions are constantly becoming disordered, sometimes by external, sometimes by internal agencies, and each time a draft is made upon our stock of vitality. During the period of active growth which in man and some of the higher mammals now covers many years, but which in its origin may have had a close relationship with the cyclic rotation of the seasons, the vital forces, so to speak, are predominant, and the disease germs and toxins can only exceptionally work diaster. When growth is complete the organism is at its best, but is not progressing, and the inevitable tendency is retrogression sooner or later under the steady and continuous attack of hostile agencies. The "microbes" of old age are all the disease germs that attack vitality, either consciously in actual disease or through the slow and by us almost unfelt sapping of the system in a thousand different ways which they must be constantly effecting at every point of least resistance. It may be, as has been conjectured by some, that every form of neoplasm, every morbid state has here and there its germs latent in the organism only waiting, as DR. CLOUSTON has expressed it, for some ebbing of the regulative and resistant cortical energy of the nervous center to leave them free to start on their distinctive career. This recognizes the supreme influence of the brain over vital processes, the control of all functions by the highest nervous center, the cortex of the brain, that formed one of the leading motives in DR. CLOUSTON'S valedictory address as President of the Edinburgh Medico-Chirurgical Society, from which the above quoted opinion was taken. Of course the brain suffers with almost every pathologic process and according as its functions are impaired with advancing age the more rapidly do the symptoms of senility appear. But like others of the higher organs its resisting power is the greater, and in the normal course of events the cerebral cortex should be the last to completely succumb to the gradual onset of all the hostile agencies that produce old age. That this is often the case is shown by the numerous septuagenarians and octogenarians who have taken leading parts in the world's progress, and much of the world's best work is done by men past the time when it is generally supposed that brain weight begins to decrease and mentality to be impaired. The truth prob-

ably is that the most of us grow old too fast, that by our own fault or that of our progenitors we yield too soon to the microbes and toxins that hasten on old age.

A HOLIDAY HINT TO THE RUSH MONUMENT COMMITTEE.

It is the fashion, particularly since the disastrous ending of the China-Japan conflict, to hold the Mongolian up to ridicule, and yet, notwithstanding our low estimate of Chinese methods, there is one feature in their economy that our higher civilization would do well to emulate. It is a point of honor with the Chinaman of whatever profession or trade to begin the new year with his obligations all met and his balance-sheet squared, so that he is able to look his neighbor in the face clouded by no shadow of debt.

Now that the great Christian holiday season which ushers our New Year is approaching, it would be well for us to imitate the Oriental barbarian and see that all our obligations are met. One of these, binding upon every medical man in the United States, is the speedy redemption of the long-standing pledge to erect a monument to the great representative patriot physician of the Revolution. It must not be forgotten that at the recent meeting of the AMERICAN MEDICAL ASSOCIATION at Baltimore, every delegate and member there present was by unanimous resolution constituted a member of the Rush Monument Committee, and that it was made his duty to obtain contributions from physicians residing in and about his district for this fund. How many of these committeemen have as yet discharged that obligatory duty then imposed upon them and accepted by them? Had these *eight* hundred men collected only ten dollars each, it would have added *eight* thousand dollars to the fund, which would have been sufficient, with the amount in hand, to have erected a monument as appropriate as that to MARION SIMS in Bryant Park at New York. A very small subscription from the individual members of the profession in their several localities would make it possible for each of these committeemen to return twice that sum, and thus complete the erection of a monument in every way creditable to the profession, since it is no longer the question of a monument but of the kind of monument that will be erected.

Shall it be only a $3,000 bust to stand as the measure of the appreciation of the regular medical profession of its immortal exemplar in the same city, and that the Capital of the Nation, with the splendid and costly work of art which the little band of homeopaths in the United States is prepared to erect during the coming year to the memory of their high-priest HAHNEMANN? Shall it not be at least as imposing and appropriate a testimonial as that which the still smaller body of members of the American Surgical Association is soon to inaugurate also at Washington in commemoration of their distinguished late President, PROF. SAMUEL D. GROSS, of Philadelphia; or as the members of the profession of Law to its great representative, CHIEF JUSTICE MARSHALL; or as the numerous statues to generals and others whose services to this new-born country and to humanity were not a tittle of those of this doctor, who saved men's lived and taught them how to lengthen them, and who offered up his own when he might have rested from his half century of professional work.

If, however, it be the fact that the mass of the profession is indifferent or unwilling to subscribe even a half-dollar each to create a fund of $50,000, which some of the equestrian statues of military heroes at Washington have cost, then it is all the more the duty of the few, who have sufficient pride in their profession not to wish it disgraced by invidious comparison, to build a greater monument than all yet standing to this medical hero, who was greater than all those they represented. DR. HENRY D. HOLTON, of Brattleboro, Vt., offered to be one of 100 physicians to subscribe $100 each to this fund, and DR. WYETH, of New York City, one of six to subscribe $500 each. Surely there are five other men in the medical profession in the United States who are able to make DR. WYETH's offer good, or ninety-nine besides DR. HOLTON who can write a check for $100 for such a purpose at this Christmas season. There ought to be in DR. RUSH's native city of Philadelphia alone, where live the men who know his life and labors best—and who have most impressively eulogized him—WEIR MITCHELL, PEPPER, MILLS, MUSSER and a score of others, prosperous medical men—enough to supplement both DR. HOLTON's and DR. WYETH's liberal offers. Certainly there are twenty great cities in this country which can raise among their leading medical practitioners an aggregate of only $500 each, and if nothing can be expected from a general subscription, we advise the committee to appeal directly to these men for the funds they require to complete the project.

It would be a proper recognition of the services of the RUSH MONUMENT COMMITTEE if its work were brought to an end by the concerted generosity of these few. It would be an emphatic, practical expression of their admiration for the man who set the standard of medical worthiness at so high a level. It would be a Christmas gift to the whole country to add another testimonial of approval of a life passed in its service to those already adorning its National Capital.

The AMERICAN MEDICAL ASSOCIATION has so often, during the past eleven years, applauded the utterances of the RUSH MONUMENT COMMITTEE through its Chairman, and has resolved over and over again to complete the work, that it can no longer evade the obligation it has thus assumed; and at the last meeting in such specific terms that we earnestly hope it will

like the Oriental merchant, begin the New Year with its account closed to its credit by the fulfillment of its pledged faith.

CHRISTMAS, 1895.

This issue of our JOURNAL contains some noteworthy contributions. The members may indeed congratulate themselves on the value of the original articles herein presented, and that the authors have made the ASSOCIATION a Christmas present of enduring value.

The articles of PROFESSORS GOULEY, ANDREWS and KELLY and others have more than a passing interest, and will be referred to again and again with pleasure and profit by all those who bind their JOURNALS.

The renewed interest taken in the ASSOCIATION, and the enthusiasm manifested in the great work of enrollment of all the regular physicians of the United States in its membership argue great things in the future. Let us not forget the necessity for renewed effort while enjoying the present, and while we listen to the merry Christmas chimes which ring their peal of gladness throughout the land let us determine that in the year 1896 the membership in the ASSOCIATION must be brought to ten thousand.

Ten thousand educated regular physicians, united in thought and sentiment although separated by American distances, will become a power for good, the ultimate benefit of which no man can now foresee, but can only dimly comprehend.

In union there is not only strength and power, but wisdom.

CORRESPONDENCE.

Foundation of the Lane Course of Medical Lectures in Cooper Medical College.

SAN FRANCISCO, CAL., Dec. 8, 1895.

To the Editor:—The undersigned announces that in accordance with a purpose which he has long entertained he has founded a course of lectures to be annually given in Cooper Medical College, and the same to constitute a part of the instruction given in this institution. The matter of these lectures shall be some subject within the domain of medical art and science; and they shall be ten or more in number, according to the option of the lecturer. The lecturer selected to deliver this course shall be a man of superior eminence in the profession of medicine, and his selection shall be irrespective of nationality. The lectures are to be given in the English language and are to remain the property of their author. These lectures, when it is practicable to the lecturer, shall be delivered as the initial ones of the semester that begins in June. This course shall be known as the Lane Course of Medical Lectures, and the sum of $2,000 shall be paid for each course. Financial provision for the perpetual maintenance of this course has been made by the founder. The lecturer shall be chosen by the founder during the latter's life-time; and should his wife survive him, the selection is to be made by her during her life-time; afterward the lecturer shall be chosen by the members of the Corporation of Cooper Medical College.

The friends of Cooper College will be gratified to learn that Dr. William Macewen of the University of Glasgow has consented to inaugurate this course in 1896. Dr. Macewen states he will be present to deliver these lectures about September 1, 1896.

This course of lectures, it is believed by the founder, beside adding to the efficiency of the instruction received by the students of Cooper Medical College, will incessantly animate them to industry in their studies through the opportunities which will annually be given them of coming in contact with some of the living leaders in medicine.

LEVI COOPER LANE,
Pres. Cooper Medical College.

Hypnotism and Double Personality.

NEW YORK, Dec. 16, 1895.

To the Editor:—I am in doubt whether such a tirade as your correspondent on "Hypnotism" in the last number of the JOURNAL has indulged in deserves notice; for I very much doubt whether of the 5,000 or 6,000 intelligent physicians who read the JOURNAL many will be found who sympathize with the spirit which it manifests. Passing by its scurrility, let me say to the readers of the JOURNAL that in these days it is scarcely necessary to discuss the "views" of men who on account of their dense ignorance of the subject have no right to have an opinion, but it *is* necessary to become acquainted with *facts* and to discuss them in a scientific spirit.

Judging by the number of letters of inquiry I have received since the appearance of the articles on hypnotism in the JOURNAL of Nov. 30, I am sure there are many physicians who are anxious to get at facts, and to know something definite regarding the subject. This information can not be given in a letter; but for those who desire a plain, simple statement of the facts and history of hypnotism let me suggest reading "Hypnotism—Its History and Present Development," by Frederick Björnström, M.D., published by the Humboldt Publishing Co., 19 Astor Place, New York; or, if they desire the latest philosophic views and therapeutic uses, get "Suggestive Therapeutics," by Prof. F. Bernheim, published by G. P. Putnam's Sons, New York, bearing in mind, however, that his extreme views on the subject of Suggestion are by no means unchallenged by authorities quite equal to himself.

Neither can the subject of double personality be discussed in a letter; but I would like to emphasize the statement that the *alleged facts* bearing on the subject presented in the paper which seems to have stirred up the gall of my critic are *real facts*—account for them as we may.

It is pleasant to know that my critic, and that of my confrères, since reading that particular number of the JOURNAL has had "reason to modify some of his 'views.'" It is to be hoped that he has so modified them. The only drawback to that cheerful hope is the difficulty of understanding how a man who has simply sat down in the densest kind of a fog can have *views* of any sort to modify.

R. OSGOOD MASON.

Further Facts Concerning Life Insurance.

MUNCIE, IND., Dec. 13, 1895.

To the Editor:—Quite a number of the life insurance companies have banded together and formed an alliance to stop "rebates." In other words they have formed an association to compel themselves to conform to legitimate business principles. Some of these companies are known as "racers," *i.e.*, they pay their agents large sums for securing new business, and these agents, in turn, divide the money with those who can be induced to take out new insurance.

To guard themselves against this wrong these companies,

now seized with a virtuous impulse, propose to pay a legal referee the sum of $2,000 per year as a salary. In addition to this sum he is to be compensated for incidental expenses, and a still further allowance, not exceeding $3,000, for a secretary and clerical assistance!

When we take into consideration the fact that a new officer is to be appointed, and guaranteed $5,000 and incidental expenses besides, does it not look as though this might be one of the microbes that is causing the marked atrophy of medical examiners' fees? Let our microscopists examine this new germ so lately discovered in the insurance kingdom.

I am glad to know that some honorable companies spurn such an imputation upon their honor, and refuse to enter into the unholy alliance. PHYSICIAN.

A Death from Vomiting.

WASHINGTON, D. C.

To the Editor:—I notice in your "Philadelphia Notes" of Dec. 14 reference to case of death following a violent attack of sneezing. The case was reported by Dr. Morton at the December meeting of the Academy of Surgery. Permit me to briefly relate a case of death from vomiting during an attack of influenza (la grippe). The patient, a man of nearly seventy years, had "dyspepsia" with symptoms of "liver disease," with occasional hematemosis. During many years he had taken large quantities of bicarbonate of soda for the relief of so-called dyspepsia. During a violent attack of vomiting he felt something "give way," as he expressed it, and at once the vomiting ceased. The writer could not see the patient for several hours after the vomiting ceased; his condition in the meantime was rapidly growing serious. Great pain in the epigastrium extending rapidly over the abdomen. Death resulted in eighteen hours from peritonitis. At the autopsy an old cicatrix was easily discovered on the lesser curvature of the stomach about two inches from the pylorus. The rupture had occurred at this point, with resultant sepsis and peritonitis. I. S. STONE, M.D.

1449 Rhode Island Avenue.

Concerning the Journal.

FROM ONE OF THE OLD TRUSTEES.

LITTLE ROCK, ARK., Nov. 25, 1895.

To the Editor:—After reading the proceedings of the Board of Trustees, and your report as editor in the JOURNAL of Nov. 23, I feel as if I must send you words of congratulation upon the progress and success you have achieved as manager of the JOURNAL in making it the equal, if not the superior of any other weekly medical journal published in the country. It rests now with the members of the ASSOCIATION, and profession generally, to sustain it and maintain it, so that it may become the glory and pride of every reputable physician in the land.

With my best wishes for you personally, and for the continued prosperity of the JOURNAL, I remain

Very truly yours, P. O. HOOPER.

SAN FRANCISCO, Dec. 8, 1895.

To the Editor:—The JOURNAL is to be praised for the excellence of its material during the past year.

Yours truly, L. C. LANE.

CHICAGO, Dec. 11, 1895.

. . . . . .

I find the JOURNAL to be one of the best among the journals I am now reading. R. C. WILSON, M.D.

CINCINNATI, OHIO, Dec. 7, 1895.

. . . . . .

I congratulate you on the growth of the JOURNAL under your wise mangement. It is easily the leader to-day. . . .

CHAS. A. L. REED, M.D.

PUBLIC HEALTH.

Contagious Disease Hospital for Newark, N. J.—The health authorities of that city have been at great trouble to find a location in Irvington for the greatly needed hospital and disinfecting plant for infectious disease prevention and treatment. The Board of Trustees for the latter town has concluded to cancel all permissions heretofore granted for the construction of the plant within the limits of that town; and that Board is said to have resisted very promising overtures on the part of the Newark authorities as to the mutual employment of the plant when in working order. A part of the trouble seems to have arisen from the fact that the proposed beneficent and up-to-date institution has been styled a "pest-house." Immediately after that cry had been raised the community of Irvington began to protest as one man.

A Sanitary Landmark.—The meritorious work of the late Dr. Thomas Fanning Wood, for many years the presiding genius of the North Carolina Board of Health, is one of the bright spots in the sanitary history of our Southern States. Although Dr. Wood passed away in 1892, there are those who keep his memory green. In a decidedly out-of-the-way place, namely, in the columns for book reviews of the *Independent*, the following good point is made. The allusion to Dr. Wood as the sanitary "John the Baptist" of his State will be appreciated by all good North Carolinians. His was the voice of one "crying in the wilderness" for many years. The review in the *Independent* has reference to a pamphlet by the successor of Dr. Wood in the secretaryship of the State Board, Dr. Richard H. Lewis, of Raleigh, entitled, "Drinking Water in its Relations to Malarial Diseases." The reviewer says:

"This pamphlet, which the Board prints for general distribution, means to one familiar with the history of sanitation in that State far more than its thirty pages indicate. It is the index of a great revolution in opinion, and of a general seeking of wisdom's ways that ten years ago would have been deemed impossible. There rises up before the mental vision the figure of Dr. Wood, the John the Baptist of that State, who paid for the printing of a biennial State Report ten years ago, that he could not afford to "post" back and forth for proof-reading, which was scarcely larger than this single chapter out of the Report for this year. He died a true martyr to a noble cause. Who says the South is not waking up?"

The Migration of the Croton Bug (Ectobia Germanica).—In the last number of *Insect Life*, Mr. L. O. Howard reports upon the peculiarities of migration of certain water-bugs in our Southern cities, whereby new houses are suddenly overrun. The following observation was made at Washington, D. C.: One dark and drizzly day, late in 1893, a friend came to me and stated that he had just seen a remarkable sight on D Street, near the Department grounds. A vast army of cockroaches, according to his story, was crossing the street. A few hours later I visited the spot and found that the bulk of the army had disappeared, but that many stragglers still remained. According to the statement made to me, the army issued from the rear of an old restaurant fronting upon Pennsylvania Avenue, and marched across the muddy street, undeterred by pools of water, ash heaps, and other barriers, directly south to the front of the building opposite.

This building was a machine shop, and at the direction of the foreman several of the men took brooms and swept back the advancing horde. They swept until their arms were tired, but were unable to stem the advancing tide. The foreman then directed that a line of hot ashes from the furnace be laid along the brick sidewalk. This proved an effective barricade. The foremost cockroaches burned their antennæ and their front legs and the army divided to either side and scurried down into the area ways of adjoining buildings in which they disappeared. The march is said to have contin-

ued for two or three hours and many thousands of the insects crossed in this way. A moment's glance, after arriving at the spot, showed me that the insect was the croton bug and that nearly all of the individuals were females carrying egg cases.

I called at the restaurant and found to my surprise that no house cleaning had been going on, and that no especial effort had been made by the application of insecticides to rid the establishment of the roaches.

It seems then to have been a true migration, a development of the true migratory instinct in the croton bug. The restaurant had become over-populated, perhaps not for its actual denizens, but certainly for the thousands of about-to-be-born young. The maternal instinct originated the migratory instinct and the army by one common impulse started on its journey for more commodious quarters. The darkness of the day is significant, and there is no reason to suppose that similar migrations do not frequently occur but undoubtedly under ordinary circumstances at night. This is the way that new houses become infested.

Health Reports.—The following health reports have been received by the Supervising Surgeon-General Marine-Hospital Service:

NOTE.—(Correction is hereby made of a clerical error published in our issue of Dec. 14, 1895. The item "Ceara: Oct. 24 to 31, 2 cases, 2 deaths," should be under the heading "Yellow fever—foreign," not as placed under heading "Cholera—foreign.")

SMALLPOX—UNITED STATES.

Arkansas: Mississippi Co., Oct. 12 to Dec. 12, 75 cases, 13 deaths.
Arizona: Nogales, Dec. 9, 3 cases.
Lousiana: New Orleans, Dec. 1 to 7, 7 cases, 3 deaths.
Michigan: Detroit, Nov. 23 to Dec. 7, 4 cases, 1 death.
Ohio: East Liverpool, Dec. 14, 1 case; Bridgeport and vicinity, Dec. 14, 18 cases; Martin's Ferry, Dec. 14, 22 cases.
Pennsylvania: Philadelphia, Oct. 1 to Dec. 12, 2 cases.

SMALLPOX—FOREIGN.

Antwerp, Nov. 20 to 27, 1 death.
Barcelona, Oct. 1 to 31, 12 deaths.
Buda Pesth, Nov. 18 to 28, 2 cases.
Constantinople, Aug. 1 to 31, 14 deaths.
Dublin, Nov. 27 to 30, 2 cases.
Glasgow, Nov. 23, to 30, 3 cases.
London, Eng., Nov. 27 to 30, 1 death.
Manchester, Nov. 16 to 23, 1 case.
Naples, Nov. 9 to 16, 7 cases, 7 deaths.
Odessa, Nov. 16 to 23, 2 cases, 1 death.
Prague, Nov. 16 to 23, 12 cases.
Rotterdam, Nov. 23 to 30, 2 cases.
Warsaw, Nov. 9 to 16, 1 death.
St. Petersburg, Nov. 16 to 23, 6 cases, 1 death.

CHOLERA—FOREIGN.

India: Bombay, Nov. 5 to 12, 14 deaths; Calcutta, Oct. 26 to Nov. 2, 29 deaths.
Austria: Hungary, Nov. 5 to 18, 47 cases 39 deaths; (from Aug. 23, date of outbreak to Nov. 18, 350 cases, 234 deaths.
Russia: Volhynia, Sept. 29 to Oct. 12, 2,901 cases, 1,190 deaths; Kiev, Sept. 29 to Oct. 12, 59 cases, 37 deaths; Rustengebiet (Siberia), Oct. 2 to 15, 4 cases, 1 death.

YELLOW FEVER—FOREIGN.

Cuba: Cienfuegos, Dec. 1 to 8, 2 deaths.
Puerto Rico: San Juan, Nov. 22 to 29, 115 cases, 19 deaths.

SELECTIONS.

Vesical Hernia.—The patient, age 56 years, had a protrusion in the right inguinal region as large as a plum, soft, tympanitic, completely reducible. An operation was desired and disclosed a lipoma on the innerside of a hernial sac, and attached to the lipoma a diverticulum of the bladder, only recognized by the flow of urine following incision. The bladder had penetrated the aponeurosis, making a direct hernia, while the hernial sac noted by the side of lipoma was indirect. The vesical incision was closed and Kocher's radical operation carried out. Recovery without complication.—*Münchener Medicinische Wochenschrift*, 1893, No. 32.

Variations in Immunizing Power of Serum from the Horse.—Ceni has reported to the Medico Surgical Society of Pavia his experiments to determine the fluctuations in the anti-diphtheritic immunizing power of the blood-serum of horses in consequence of muscular exertion. So long as the muscular activity is not injurious to the system there is no reduction, rather a slight increase; but over-taxing work, which is accompanied with reduction of body weight, greatly influences the immunizing power. For example, a horse which yielded serum of 80 units strength after twenty-five days of hard labor causing loss of 90 kilograms in weight, furnished serum of only 20 units strength.—*Wiener Klinische Rundschau*, Sept. 1, 1895.

The Changes in the Thyroid Gland in Exophthalmic Goitre.—Lubarsch (*Centralbl. für Allg. Path. u. Path. Anat.*, Bd. VI, No. 18) examined a number of thyroid glands in exophthalmic goitre and found certain quite constant changes, among which the following are the more important: 1, In these thyroids he found only rarely real gland follicles; mostly there were present dilated spaces clothed with epithelium in which more or less marked papillary formations were observed; 2, these spaces contained but little or no colloid material; but, 3, a fluid of mucoid appearance. In regard to the pathogenesis of exophthalmic goitre, Lubarsch expresses the opinion that the changes in the thyroid gland are not secondary and not due to primary changes in the sympathetic or the medulla oblongata, as has been advanced by some writers. Hypersecretion of colloid material can not be regarded as the cause, because the enlarged thyroid in this disease does not secrete much if any colloid substance. In all probability it concerns an unknown etiologic factor which brings forth the changes observed in the nervous system as well as those in the thyroid gland.

The Post-Mortem Findings in 180 Suicides.—Heller (*Centralbl. für Allg. Path. u. Path. Anat.*, Bd. VI, No. 18) describes the post-mortem findings in 180 instances of suicide observed in Kiel. The ages varied from 9 to 82 years. It was found that 20.6 per cent. committed suicide by shooting. Statistics show that in Prussia 13.3 per cent. of the suicides shot themselves and the larger percentage of this mode of suicide in Kiel is explained as due to the presence of so many soldiers. Concerning the anatomic changes which would allow some deductions as regards responsibility, the following may be stated: In 10.4 per cent. there were no changes in the brain which would allow the inference that there had been any disturbance of the brain functions; in 6 per cent. there was some changes; in 9.9 per cent. marked changes, as, for instance, chronic leptomeningitis, pointing in direction of psychic alterations. In 48.4 per cent. there were very marked cerebral changes which would militate against the theory of responsibility for the act of suicide, and among these were numerous alcoholics. Six per cent. were insane. In 19.3 per cent. there was present either acute febrile disease, menstruation or pregnancy in women.

Contribution to the Pathologic Anatomy of Puerperal Eclampsia.—Luesden (*Virchow's Arch.*, Bd. CXLII, Heft. 1) examined exhaustively two fatal cases of puerperal eclampsia and summarizes his observations and conclusions in regard to the pathologic anatomy as follows: 1. The two cases afforded no evidence whatever of an infectious or bacterial origin of the eclampsia. 2. The cause of eclampsia seems to be some toxic substance circulating in the blood. 3. The organic changes that merit the first consideration in eclampsia are the renal affections. (In both of Leusden's cases there was a well marked nephritis.) 4. Multinucleated cells, first found in the lungs by Schmorl, were presented in both these cases, and such cells correspond fully with the so-called giant cells of the placenta. 5. The presence of these cells is simply an accidental occurrence. 6. It has not been possible to demonstrate that these cells have any power to cause the formation of fibrin. 7. The development of other substances in the placenta capable of causing fibrin formation could not be proven in either of the two cases. 8. Embolism of liver cells

was not found in either of these two cases. 9. Limited necrosis of the hepatic parenchyma was present in both cases, but this could not be regarded as the cause of the eclampsia. 10. The hyaline thrombi in the capillaries of the lungs and the liver were presumable secondary changes, and these thromboses are no. peculiar to eclampsia. 11. The hyaline thrombi in the lungs are looked upon as of close relation to the development of the acute pulmonary edema.

New Anatomic Nomenclature.—The new anatomic nomenclature referred to in these columns recently, seems to have met with strong opposition in one quarter. Prof. Dr. R. Kossmaun, of Berlin, while he welcomes the attempt to harmonize designations in anatomy, yet feels himself called upon to point out in the *Deutsche Medicinische Wochenscrift* many imperfections, some of which, at least, might have been easily avoided. His points of issue are, the question of accentuation, the etymologic correctness as Latin terms, and the hybrid composition of some of the designations. The Commission decided at Munich to indicate by an accent the proper pronunciation. We can all realize how easily a slip is made by a careless lecturer, and repeated and carried out by students, but we can hardly conceive the need of correction so great in this country, as is indicated by a quotation in Professor Kossmaun's article, to wit: "*Nos Pôloni non cûramus quantitatem syllâbarum.*" The excuses of the Commission for this change in plan are poor, and it remains a defect. Under the second head is noted the false Latinization of the Greek eidos, for instance, ziphoidens instead of ziphoides, os ethmoidale instead of os ethmoides. In ethmoidalis we see a Latin termination applied to a Greek stem. Mesovarium lymphoglandula and epitrochleoanconeus are instances of hybrid words, the last named starting with a Greek stem, followed by a Latin, and terminating in a second Greek. The critic would also banish fibrocartilage, mentolabialis, oculomotorius, in favor of fibricartilage, mentilabialis and oculimotorius, in correspondence to classic instead of late Latin models. He notes also the use of gastroepiploicus, instead of gastrepiploicus, parotideomassetericus for parotidomassetericus. By other instances, also, we see that our anatomic terms are often not formed on classic models, and that much thought must be given to the subject before we arrive at a correct anatomic nomenclature.

Influenza and Encephalitis.—Nauwerck (*Deutsche Med. Wochenschr.*, 1895, No. 25) had the opportunity to examine, bacteriologically, two fatal cases of influenza-encephalitis. The first case was that of a girl who became ill with brain symptoms one week after an attack of influenza, and died after seven days. There were found several foci of softening and venous thrombosis in the cerebrum, but the bacteriologic examination was negative. In the second case, a young woman presented violent symptoms of brain inflammation preceded by coryza and pains in the joints, death ensuing on the third day. On opening the cranial cavity the convolutions were found flattened, and on incising the bulging corpus callosum 50 ccm. of turbid watery fluid flowed out. In the right cerebellar hemisphere was a walnut-sized apoplectic area with grayish-red softened walls. Inoculations on blood-serum agar with the ventricular fluid resulted in a growth on but one tribe. In this tribe there developed in the incubation a delicate, transparent, granular culture which consisted of very small bacilli without capsules and diplobacilli with rounded ends. Compared with Pfeiffer's photographs they appeared somewhat larger than, but shaped much like, the influenza bacilli. Reinoculation failed to produce further growth. Cover-glass preparations from the ventricular fluid showed these bacilli to be the only microorganisms present. These bacilli were also found in sections from the hemorrhagic focus in the cerebellum, although in but small numbers. Nauwerck concludes that they were influenza bacilli, and that the cerebral disease was due to these microörganisms only. In the first case, in which the bacteriologic examination was negative, it is asumed that the bacilli had already died at the time of the post-mortem. The bacilli are thought to have reached the brain by way of the blood.

The Buried Tendon Suture.—At the recent meeting of the Southern Surgical and Gynecological Association, held in Washington, Dr. Marcy, of Boston, read an interesting and instructive paper upon the history of the buried animal suture and the best methods of its preservation and use. Since he was the first to suggest the employment of buried sutures and demonstrate their value, his contributions upon this subject are of more than ordinary importance. His first contribution upon the buried catgut suture was published in 1870. In 1880 he substituted tendon for catgut, as in every way superior, and in various articles he has called the attention of the profession to the importance of its general adoption.

Dr. Marcy stated that the defect of catgut is inherent in its structure, and that it can not be rendered satisfactory by any method of preparation. "The connective tissue sheath from the intestine of the sheep, from which catgut is manufactured, has its ultimate fibers disposed in an oblique direction, crossing one another diagonally. This serves the physiologic purpose of permitting foreshortening and distension as well as strength." The violin string, catgut of commerce, is not unlike a very thin piece of tissue silk which has been cut diagonally and then twisted. This would make a very imperfect fish line, and Dr. Marcy thinks the comparison not overdrawn. When dry the gut is strong, but when wet is flat, elastic and slippery, a state which necessarily pertains after implantation in the tissues. Chromicised tanning only partially remedies this defect, and sterilization by any process can not correct the damage which the intercellular cement substance has sustained from the bacterial infection and maceration process to which, in preparation, the catgut is necessarily subjected.

Properly prepared tendon not only escapes these injuries, but has an entirely different ultimate construction. The connective tissue cells are disposed parallel to each other, and are the strongest structures of the animal economy; of equal weight, carefully selected tendon will sustain a tension equal to that of silver wire. Tendons taken from the freshly killed animals are quickly sundried and kept dry until their first preparation. Soaked in a 1 to 1,000 mercuric solution until supple, the tendons are carefully cleaned, assorted and dried between sterilized towels. They are then chromicised until of a dark golden yellow, and preserved in sterilized linseed oil to which one-tenth part of the crystals of carbolic acid has been added. Sutures thus prepared improve by age. When desired for use, they are soaked in 1 to 1,000 solution of bichlorid of mercury until supple. Preserved in absolute alcohol, boiled in it under pressure, boiled in kummel (oil of carroway seed), indeed, prepared by any other of the many ways suggested for the sterilization of catgut, serve only to injure the inherent structure of tendon and are not to be commended. The tendons from the tail of the smaller varieties of the kangaroo furnish by far the most valuable suture material yet found. The anatomic construction of the psoa muscles of the rat, squirrel and opossum is not unlike that of the kangaroo; each fassiculus having its independent tendon extending the entire length of the tail. The tendons of these smaller animals are too short and fine, those from the large kangaroo too large. The latter, when subdivided, fray and are less valuable. Dr. Marcy reported that from various sources, kangaroo tendons have recently been put upon the market which are very defective. One lot of three hundred pounds, collected for him, was almost entirely from the large kangaroo, and so undesirable that he refused its acceptance. This, at a price, has found its way into the American market and is being distributed to the profession. Selected tendon should be furnished at $10 per hundred, although usually sold at a much higher price. Dr. Marcy has secured reliable parties who prepare the tendon subject to his supervision, and it may be obtained at this price by addressing him.

Dr. Marcy closed his paper with an account of his many histologic experiments upon animals and of his large surgical experience. He expressed the belief that all aseptic wounds, including even the larger amputations, should be closed in layers by the buried tendon suture without drainage. The edges of the skin are coaptated by means of a parallel continuous buried suture (subcuticular), and the wound is sealed with iodoform collodion, strengthened by a few fibers of cotton. The advantages of the buried tendon suture are briefly as follows: *Aseptic*, buried in *aseptic* wounds they remain

aseptic; the repair is primary without inflammation, pain or suppuration; the iodoform collodion seal renders subsequent infection impossible; no sutures are to be removed, and no other dressing is required; the tendon is absorbed so slowly that it may be traced months after implantation; ultimately it is replaced by a band of vitalized connective tissue which serves as a permanent reinforcement to the united structures.

Tuberculosis in the Yellow Race.—Dr. Ernest Martin, of the French Legation in China, has just published an important work on this subject, from which is taken the following:

The population, composed of what ethnography designates under the name of *Yellow Race*, forms in itself a third of the whole population of the globe. The two important questions to study in this connection are: 1. Does tuberculosis exist in this race? 2. At what period did it appear there?

Chinese medical works describe a disease called *lao ping*, which means a disease which seats itself in the lungs, and, spreading throughout the system, consumes like fire. The writings of European doctors who have practiced among this people furnish more explicit reports. Rennie, in the course of an extended practice at the hospital of Tam-Soui, the most important and populous city of the island of Formosa, treated 22,000 different disorders, among which the different forms of tuberculosis appear for only 1.25 per cent. M. Geurin, surgeon in the French army, who has passed three years among the Formosans, reports that they are endowed with a strong constitution, which makes athletes of them, and that there is very little consumption among them. According to the statistics of M. Dudgeon, physician of the dispensary of Pekin, which is maintained by the Evangelical Society of London, out of a total of 3,157 diseases treated in 1865, tuberculosis was mentioned only 36 times. M. E. Britschneider, who for twenty years has held the position of doctor to the Russian Legation at Pekin, declares tuberculosis much less frequent in that city than in St. Peterburg. The personal experiences of M. Ernest Martin, covering several years and gained principally at the Orphanage of Gen-Tse-Tang, at Pekin, have furnished him with similar proofs. He writes: "Consumption is very infrequent there, even among the most wretched class of people, notwithstanding the fact that the public hygiene of the capital leaves much to be desired. . . . . Having therefore proved the infrequency of tuberculosis in the Yellow Race as compared with the nations of Europe, let us find out the causes. Let us study into the state of society, the public institutions and hygiene, and see if they can throw any light on the subject. . . . . The density of the population of China surpasses nearly all other countries in the world. The cities are closely packed, but their population is not equal to the large cities of the civilized world. Tien-sin counts about 950,000, Fou-Schow 630,000, and Canton 1,600,000, the largest population unless we consider Han-Keon and Han-Yang as a single center, the population of which would be about 3,000,000. In none of these cities do we find such crowded quarters as certain localities in Paris, where they count 3,000 persons to a hectare.

"As there are no great industries in China, we do not find the accompanying evils of large factories and crowded tenements. Barracks are done away with entirely. There is no standing army in China. There are thousands of Tartars, soldiers of the Imperial standards, but they live with their families. Although a nation counting at least 400,000,000 souls, it might be said that she has no army in the European sense of this word. According to the latest statistics concerning consumption in the French army, it would appear that 40 per cent. of the cases were contracted in the army. Here, then, is one source of contagion not found among the Chinese.

"Extended imprisonment is another source to consider. It is true the Chinese prisons are foul dens, with no attempt for hygiene; but while their laws are strict, they do not misuse this form of punishment. Penalty of death, exile, the bamboo, and the cangue are most often inflicted. The first of these does not permit of a long imprisonment; exile does not bring on consumption; the blows of the bamboo are quickly dealt; and as for the cangue, the condemned generally carries it without being imprisoned—he has his liberty and goes about wherever he chooses. Nevertheless, public hygiene is almost wholly neglected in China. The inundations due to the falling away of the land and to neglect of public works are the source of continuous and deadly epidemics.

The capital itself is no exception. It is an object of disgust to strangers. The sewers, which date from the fifteenth century, have been out of repair for some time, and have become the receptacle of all the débris and the source of the typhoid epidemic which reaps large harvests yearly. The wealthy, living in their great yamens, are less exposed to it, as are also the foreign residents, thanks to their good hygiene, and more than all to their exodus into the neighboring hills during the torrid heat of summer. Such is the state of affairs in Pekin, and the other cities of the empire are no better in sanitary matters. It is not, therefore, in the city masses which, although not as closely packed as those of Europe, are also less numerous, but where, on the other hand, hygiene is scarcely regarded at all that we must seek for the explanation of the infrequency of tuberculosis."

In considering the question of personal hygiene, and especially of alimentary hygiene, Dr. Martin finds no positive evidence to help in explaining the situation of things. Alcoholism, which in Europe constitutes a powerful factor in tuberculosis, scarcely exists among the Chinese. They are sober, and sober they remain at all points of the globe where their emigration reaches. They smoke opium, it is true, but, though millions of them are addicted to this habit, it is very seldom that they go so far as to undermine the constitution and suffer in consequence the same fate as drunkards—that is, to become consumptives.

The chapter devoted to the biological and ethnic peculiarities of the race, which throws some light on the subject, is full of interest and the result of careful research. In connection with the domestic life of the Chinese, Dr. Martin mentions the fact no animal milk is ever used in feeding infants. Maternal nursing is the rule, hired nurses the exception, and artificial feeding quite unknown. The life of the woman is necessarily quiet. Her time is passed almost entirely in her own apartments, which she quits only to make visits of ceremony or to go to the temples and family tombs. The mutilation of the feet, inflicted upon the Chinese woman, is not without its injurious effects, and does indeed seriously impair the health of a large number of children. This custom is, however, strictly carried out only among the higher classes. As the nature of the Chinaman is passive to a remarable degree, he rarely experiences those great shocks from which it is so difficult for others to recover. We give in full the concluding remarks of this important work:

"In a word, then, the yellow race is, although not wholly free from tuberculosis, comparatively so as compared with the other races of the world. We credit this infrequency of the disease, and the comparative immunity, to certain social and ethnic conditions. And are these conditions liable to change? Will not the emigration of this people to so many different points of the globe, particularly to the New World, bring about such a result? For, although many of them remain permanently in strange lands without any hope of returning, the majority eventually go back to their native land, carrying with them to a great extent, the morals and customs of the countries of their temporary exile. On the other hand, there are many foreign residents in China, and the natives are quick in imitating whatever evil example the former may set. The opium habit which is increasing daily is an illustration of this fact. However strong, up to the present day, may have been the resistance of this people against all innovations which Europe has attempted to introduce, the day will undoubtedly come when the advance will be sounded and then a decided change in the social state of the country will place her in such condition that she must fatally undergo the evil results of civilization, one of the most certain evidences of which is tuberculosis.—*Journal d' Hygiene, Paris.*

SOCIETY NEWS.

Chicago Ophthalmological and Otological Society.—Regular meeting, held Nov. 12, 1895, at 155 Dearborn Street, F. C. Hotz, M.D., in the Chair.

There were twenty-two members and visitors in attendance.

Minutes of the last meeting were read and approved.

THE SECRETARY read the applications of Drs. E. T. Dickermann, of Chicago, and C. M. Robertson, of Davenport, Iowa.

The applications were referred to the Committee on Membership.

DR. HALE showed a young man of 19, whose vision had always been bad. O. S., v. c.—20=3-200, v. being eccentric.

O. D., v. c. — 20 = 5-20. There were well-marked choroidal changes in both eyes, central in O. S.

DR. HALE wished to know if the members were in favor of removing the lenses in such a case?

DR. TILLEY thought that, in general, such an operation would be justifiable.

DR. COLEMAN had a case where he needled the lens, which was slightly cataractous. Before the operation a minus 20 was needed to give the best vision. Three operations were done. After the first one there was some pain, but not after the second and third. There was only slight improvement in consequence of the operation, but the vitreous was full of opacities which interfered.

DR. COLEMAN thought it unwise to ever extract the lens in such cases; needling being the only operation.

DR. WILDER spoke of the dangers of starting up a quiescent inflammation by any such operative procedure. On the whole, however, he thought the risks were justifiable.

DR. HOLMES thought the fundus changes contraindicated operation as a rule.

DR. HALE then spoke of the clinic at Kiel, and referred to the uniform kindness and courtesy of Prof. Voelckers. The University of Kiel is a small one, but the buildings are modern and the eye clinic, especially, is very complete. The general operating room he considers one of the best in Europe. Prof. Voelckers is a very energetic and charming man. He was a favorite pupil of Donders and a fellow student of Knapp, of New York.

While the great ship canal was being built, the clinic was much increased by the workmen, who suffered greatly from conjunctival diseases, especially trachoma.

Methods of treatment of various diseases of the eye were described at length. Refraction is very poorly done according to American ideas; almost no cylinders are used. Voelckers is a beautiful operator. He does advancement for squint, iridectomies in cataract operations, and prefers enucleations to eviscerations.

DR. WILDER then read a paper entitled "Pulsating Exophthalmus." (This paper will be published.)

DR. GRADLE had seen a case of vascular tumor of the side and floor of the nose which was slowly removed in twenty operations, this large number of operations being required on account of severe hemorrhages, and only a little being done at a time. Three weeks after the tumor had been entirely removed there was diplopia due to interference by pressure of the same side with proptosis, but no pulsation. This disappeared, however, in three months.

DR. COLEMAN showed a new milliampèremeter by Schulmeister.

The Society then adjourned by limitation.

Annual Meeting of the Marion County Medical Society.—At the annual meeting of the Marion County (Fla.) Medical Society the following officers were elected for the ensuing year: President, W. V. Newsom; First Vice-President, D. A. Smith; Second Vice-President, T. J. Myers; Secretary, R. P. Izlar; Treasurer, W. R. O. Veal. On motion the following resolutions were adopted:

WHEREAS, The various life insurance companies throughout the United States have reduced the fee for medical examinations from $5 to $3,

Resolved, That the members of the Marion County Medical Society refuse to make such examinations for less than $5.

Resolved, That this preamble and resolutions be spread upon the minutes of the society and published in the medical press of the United States.

Also the following which was carried:

WHEREAS, This society believes that a Department of Public Health under control of a secretary, who should be a member of the cabinet of the President of the United States, is necessary to the welfare of this country; therefore, be it

Resolved, That the society indorses the bill now pending to establish such Public Health Department, and requests our members of Congress to support said bill and aid in its passage.

Resolved, That the secretary be requested to transmit a copy of the foregoing preamble and resolutions to our senators and representatives in Congress.

Resolved, That this preamble and resolutions be spread upon the minutes of the society.

Dr. W. V. Newsom, as president, delivered his annual address to the society on the "History of Medicine," and responses to calls were made by Messrs. Reardon, Bullock, Bittinger, Anderson, Brumby and Izlar. Rev. Dr. Law invoked the blessing and protection of the Deity.

NECROLOGY.

F. P. PORCHER, M.D., the eminent physician and professor, died at Charleston, S. C., on Nov. 19, at the age of 70. He was a South Carolinian by birth, of Hugenot extraction. He took his A.B. and M.D. degrees from his home colleges, the latter in the year 1847. He served as surgeon in the Confederate Hospitals of Petersburg and Norfolk, was President of the State Medical Society and visiting physician to the Charleston City Hospital. He was professor of materia medica and therapeutics in the Medical College in the State of South Carolina, and was the author of works on pharmaceutical botany. His "Resources of the Southern Fields and Forests" reached two editions, those of 1863 and 1869, the former being a book of over six hundred pages. His contributions to medical literature were varied and instructive.

F. L. BOND, M.D., of Menominee, Mich., Dec. 3——C. E. Edwin, M. D., of Kansas City, Mo., Dec. 7——L. B. Perry, M.D., of Winamac, Ind., Dec. 11, aged 43——Elias Jessup, M.D., of Whittier, Cal., Dec. 3, aged 62——William B. Porter, M.D., of Chicago, Dec. 12——H. C. Garner, M.D., of Kansas City, Mo., Dec. 10——Levi Keehn, M.D., of Syracuse, N. Y., killed by a railroad train, Dec. 10——M. B. Folwell, M.D., of Buffalo, N. Y., Dec. 10, aged 54——A. J. Hobart, M.D., of Clinton, Iowa, Dec. 6, aged 70.——Thomas Cox, M.D., of Marietta, Ohio, Dec. 10.

MISCELLANY.

International Congress of Thalassotherapy.—The French Association for the Advancement of Science will hold its next session in Tunis in April, 1896, and on that account the International Congress of Thalassotherapy will be held at the same time and place.

Semi-Centenary of the Discovery of Anesthesia.—According to *Nouveau Remèdes*, the Medical Press Association of France is engaged on the proposition of its Secretary General to celebrate in some way next year the semi-centenary of the discovery of anesthesia (Sept. 30, 1846). A committee consisting of Messrs. Cornil, Lucas-Championniere and Beaudouin has been designated to prepare the program.

Chicago College of Physicians and Surgeons.—A press dispatch dated Champaign, Ill., Dec. 10, imparts the following: Five representatives of the Chicago College of Physicians and Surgeons arrived in town this evening to confer with the Board of Trustees of the University of Illinois regarding the annexation of the medical school to the university. This project has been under discussion the last two years by stockholders of the College of Physicians and Surgeons.

Without Fear.—Dr. Belman, a well-known Suffolk doctor, had a great contempt for homeopathy. An old lady who pinned her faith to Hahnemann, one day took five globules by mistake for three, and, her own doctor being absent, Dr. Belman was sent for post-haste. He came, looked grave, shook his head and said if people would meddle with dangerous drugs they must take the consequences. "But, madam," he added, "I will die with you," and lifting the bottle of globules to his mouth, he swallowed its entire contents.—*Salt Lake Tribune.*

The Red Cross in Cuba.—The medical men of the United States have made their influence felt in respect of the Red Cross on nearly every battle-field of the world. Cuba is the field at the present time. Red Cross work in that country is being conducted by an American missionary there, Dr. A. J. Diaz. The New York *Independent* has learned that he has organized and located seven Red Cross hospitals in the section where the fighting is most frequent and where the Spanish Government has about twenty thousand soldiers. At each station there are a native physician, two women nurses and about ten male helpers. The Spanish Government officials have given formal recognition of their satisfaction in this humane work.

The Medical Staff of the Fire Department of New York City.—The Fire Commissioners have lately voted to make a radical change in the staff of surgeons serving that Board. The following named physicians have been removed: Drs. Frank L. Ives, Robert A. Joyce, John J. Quigley and James A. McLaughlin. The new appointees are Drs. Fred A. Lyons, Edwin B. Ramsdell and Francis M. Banta. It was decided that the Department would hereafter require three physicians instead of four. The new appointees were chosen from the civil service list and began their duties Dec. 1. The salary of these surgeons is $2,000 per year. The Commissioners alleged that they removed the surgeons named, or some of them, for cause. It is possible that the two junior removed surgeons will resist the action of the Commissioners by lawsuit. They were duly appointed from the civil service list.

A Medical Explorer.—The medical profession has yielded several explorers. Their names are enrolled among those who have helped to rescue Central Africa from barbarism. Emin Pasha and Dr. Parke will not soon be forgotten. Among the feats which had hitherto baffled the efforts of the most intrepid travelers was the exploration of Lake Rudolf. Thomson and Gregory both tried to reach the lake from Masailand, but were defeated in their endeavors by the hostility of the native tribes and the dangers of the climate. A young American medical man, Dr. Donaldson Smith, has, however, succeeded in reaching Lake Rudolf from the north through Somaliland. He is thus the first white man who has visited this *terra incognita*, and geographers are looking forward with interest to the publication of his records and diaries. Dr. Smith was in Somaliland on a sporting expedition, and hearing that no white man had ever penetrated to Lake Rudolf from the north he determined to make the attempt. He came to England and made preparations for this serious and dangerous expedition. He left London last May, and took with him Mr. Gillett, a taxidermist, and Mr. E. Dodson. The former was obliged to return home. It has always been believed that Lake Rudolf lay in the midst of a fertile country, rich in ivory, but peopled by implacable and hostile tribes. We congratulate our medical colleague on being the first to bring light into this dark continent.—*British Medical Journal*, Nov. 23.

The Gold-Headed Cane and Other Mannerisms are now Happily Defunct.—According to a writer in *Lippincott's Magazine*, a great gain has been made in and for the profession of medicine by the shelving of its distinctive marks of attire and demeanor. He says:

"A very gratifying tendency has marked the development of the medical profession in the last generation. The slough of manerism, the formal dress, the owl-like solemnity have been thrown off, and the physician, by his own choice, is being judged more by his actual attainments than by external appearances. Thirty years ago, a bald head, a white beard and a long frock coat were as much a part of the physician's equipment as his diploma. Now, on the other hand, it is no infrequent occurrence for an elderly man of real ability and modern in his methods of practice, to lose a patient through the fear that he may not be fully abreast of the times. What can be further from the old traditions than a leading surgeon lounging about in an outing shirt and blue belt, or a distinguished physician playing polo? Yet these amusements are simply a relaxation from the tension of professional study. One of the best indications that people are learning to judge their medical advisors by their merits is the fact that the advertising physicians are being driven to the wall, despite the most specious extrinsic evidences of success that the shrewdest business methods can produce."

Traumatic Mastitis in Men.—At a late séance of the Paris Academy of Medicine, M. Auguet reported the case of a carter 23 years old, in good health, without tuberculous or syphilitic antecedents, who received a violent blow in the right breast by being struck by his horse's head. The force of the blow knocked him down, and he lay unconscious a few seconds; upon rising he felt no inconvenience save slight pain over the contused area, and was able to continue the journey. That night, however, the pain prevented rest; it was of a neuralgic character, shooting to the shoulders and arm, and the following morning he sought medical advice. Upon examination the right pectoral region was found to be swollen and hot, around the nipple was a swollen area in the mammary gland involving the upper and external lobes; the gland was the size of a hen's egg, it was painful, mobile; there was no echymosis nor osseous lesions. Treatment consisted of wet compresses, then, the inflammation having subsided, by frictions with Neapolitan ointment, cupping and compression of the breast. In a month the cure was complete but the gland while having a normal consistence remained enlarged. It has continued to increase in size until at present, a year after the accident, it forms a considerable prominence. The submammary groove is obliterated, the nipple is pushed down and in, and the lobes of the gland can be felt distinctly through the skin. The swelling extends 10 centimeters above the nipple, 12 below, 8 to the outer side and 4 to the inner. It is troublesome by reason of its size, so much so that ablation seems indicated, but it is absolutely painless, and there seems to be no morbid change in the glandular tissue. Consequently we have to deal with a simple hypertrophy of the breast, following traumatic mastitis.—*Le Bulletin Medicale*, 1895, No. 73.

Sufficiency of Charge of Practicing Medicine Without License.—By the act of the Legislature of 1891 to establish a State Board of Health and regulate the practice of medicine in the State of Nebraska, it was made unlawful for any person to practice medicine, surgery or obstetrics, or any of the branches thereof, without first having obtained and registered a certificate from the State Board of Health as provided in the act. Certain exceptions were made by Section 11 of the act, but were not from the operation of the portion of the law which required a certificate to be obtained from the State Board of Health, and its registration by persons practicing medicine, surgery or obstetrics. After the expiration of six months from the passage of the act, the persons designated in the exceptions were as liable to prosecution for non-compliance with the law in these particulars, as any others. Consequently, the Supreme Court of Nebraska holds, in the case of O'Connor v. State, decided Oct. 15, 1895, that as the subject of the exceptions did not become a part of the description of the offense of non-compliance with the provisions of the act, or limit or qualify the language of the act creating such offense, no negative averment in regard to the exceptions is necessary in an information charging a person with practicing medicine after the six months has elapsed, etc., without having complied with the provisions of the act. In this, the court overrules a former decision to the effect that a negative averment in regard to the matter of the exceptions was necessary in an information of that character. The statement in the statute that "any person shall be regarded as practicing medicine within the meaning of this act, who shall operate or profess to heal or prescribe for or otherwise treat any physical or mental ailment of another," the court further holds, is a definition of practicing medicine, and that, in charging the crime of practicing medicine without having complied with the provisions of the act, there must be a statement of facts showing the doing by the accused person of one or more of the acts included within the foregoing statutory definition.

Bacteriologic Examination of the Blood in Typhoid.—Dr. Martin Thiemich discusses this question on its practical side. The attempts to find the bacilli in the feces are far from being always successful, and latterly the differential diagnosis between the typhoid bacillus and non-pathogenic intestinal bacteria is found to be attended with extreme difficulty. By puncture of spleen during life, however, the bacteria is obtained in most cases, and in blood from a rose spot the positive results have out-numbered the negative, and the identification of the bacillus is easier from both of these sources. A resumé of the results of different investigators is given, followed by his own in seven cases. Every precaution was taken in his cases to avoid contamination. So far as known, there is no one characteristic of the bacillus of typhoid, obtained through the microscope or by cultivation, which alone will distinguish it from other microbes, but there must be an assemblage of points. The diagnosis was regarded assured in the 7 cases reported, when the typical invisible growth was present on potatoes, when no gas formed in either case, milk, or grape-sugar agar. When milk was not coagulated, the indol reaction was negative and gelatin plates showed no vine-leaf veining. In the seven reported cases, typhoid bacilli were found from rose spots in three (no rose spots present in one case), and from blood from a vein in a fourth. In the three fatal cases bacilli were found, after post-mortem, in the spleen, also in one in the lung with Fraenkel's pneumococcus in pneumonic foci, and in one case in the mesenteric glands with staphylococci. In the fourteen cultures from blood staphylococci developed six times, whether from contamination or their presence in the blood could not be decided.—*Deutsche Medicinische Wochenschrift*, Aug. 22, 1895.

Practical Notes.

Chlorohydrate of Pilocarpin.—During the epidemical grippe this year in the village of Plancher-les-Mines and its vicinity, M. Poulet had occasion to test the usage of chlorohydrate of pilocarpin on 108 patients suffering from grippe and pneumonia. He administered the salt in a daily quantity of 05 centigr.; the treatment lasted usually two days, rarely three days. Out of the 108 cases, there were only 4 deaths. —*Revue Internationale.*

Local Treatment of Neuralgia.—(SABBATANI).

℞. Menthol . . . . . .
Guaiacol āā 1
Alcohol, absolute 18

M.S. Gentle friction with the aid of a pencil to the painful parts, with 4 grams of this mass. The parts are then covered with wadding. The dressing may be repeated two or three times in twenty-four hours.—*Ther. Wochenschrift*, 1895, No. 35, and *Nouveau Remedes.*

Cure of Prostatic Hypertrophy by Section and Ligature of the Vas Deferens—The priority of the idea of the employment of castration for prostatic hypertrophy belongs to Launois. This operation has been put in practice and tested by Ramm, White, Broome, Haynes and Mouillin, but castration is not always readily accepted; it has, moreover, a certain degree of gravity. Deja Bier, in 1894, proposed the ligation of the internal iliac arteries, with the idea of causing atrophy of the prostate. Isnardi recommends a simpler operation, and one that is a perfect substitute for castration, which has all the advantages, without the inconveniences, namely: Section and ligation of the deferent canals. He has employed this method twice; the first case is conclusive; a cachectic old man, suffering from visceral cancer, which carried him off in two months. The second case is very instructive; a man aged 72 years, suffering from retention and incontinence, due to prostatic hypertrophy. Left testicule atrophied in consequence of blennorrhagia epididymis. The rectal touch revealed on the right side a large tumor like the half of a nut, while the left side showed none. Operation, May 1, 1895; section of the right vas deferens between two ligatures. Patient recovered from his urinary troubles, the prostate diminished in volume, and the right testicule became atrophied like the left.—Isnardi, *Gazette di Torino*, No. 31, 1885.

Pulmonary Surgery.—In a discussion which took place in the *Société de Chirurgie* (Nov. 20, 1895) M. Ricard related an operation in which he had exsected a portion of the eighth rib, incised the pleura and then with a thermo-cautere incised the lung to a depth of seven centimeters. The incision was made toward the center at the level of the opening. MM. Dienlafoy and Giraudeau had previously examined the patient and located the abscess opposite the inferior angle of the scapula. When M. Ricard had passed the thermo-cautere into the lung to the depth mentioned, he then passed in his finger for further exploration. He felt an induration toward the mediastinum near the diaphragm. He was satisfied from the touch that an abscess existed, and he passed a trocar along his finger and punctured the mass. Pus followed, the cavity was drained and the patient recovered. M. Ricard concludes from the case that in deep pulmonary suppuration neither percussion, auscultation nor exploratory puncture are sufficient to invariably determine the seat of the lesions. He believed it necessary to open the pleura and pulmonary tissue, and he therefore was of opinion that the method of M. Tuffier of detaching the parietal leaf of the pleura, would add to the natural difficulty.

M. Tuffier in reply reaffirmed his view that the detachment of the pleura allowed the finger to transverse the entire lung surface, and he maintained that it was better to put the hand "*on* the pleura than *in* the pleura."—*Gazette Médicale de Paris*, Nov. 23, 1895.

Treatment of Vesico-Vaginal Fistulæ by Intra-vesical Suture; Recovery.—According to the *Medical Week*, Prof. Duplay presented before the Paris Academy of Medicine, on Nov. 19, a surgical case of great interest:

A woman 31 years of age was affected with a vesico-vaginal fistula, situated much too high up to permit of freshening and suture through the vagina. I therefore decided to resort to supra-pubic cystotomy, followed by intra-vesical suture.

The operation was performed on July 15 last. After incision of the abdominal wall and bladder I easily found the fistula, which was situated transversely in the floor of the bladder, and measured about 2 centimeters in length by 1 centimeter in the antero-posterior direction. With the aid of long bull-dog forceps and a curved bistoury I detached the vesical mucosa all around the fistula, and freshened its edges. I then placed two rows of sutures, one in the vaginal, the other in the vesical wall, the former being silk and the latter catgut sutures. By this means the fistula was completely closed, both toward the vagina and the bladder. The hypogastric wound of the bladder was thereupon united by two rows of catgut sutures, one of which was placed in the mucous, and the other in the muscular coat. Lastly, the abdominal wall was closed, a small drain being left in at the lower end, a slightly compressive, iodoform gauze and cotton-wool dressing was applied, and a self-retaining Sims catheter was introduced. The patient made an uneventful recovery. No urine escaped through the vagina after the operation, and a month later she was discharged completely cured, the only disturbance being slight vesical tenesmus. I have heard from her since. Recovery has been fully maintained, and her general health, which before the operation was somewhat impaired, is now excellent.

Treatment of Pernicious Anemia.—Prof. William Pepper is reported in the *Medical News*, Nov. 23, as presenting to the class at the University of Pennsylvania his views as to the causation and therapy of pernicious anemia. The case in point before the class has had for its origin some form of intestinal disease in a patient who always "bolted" his food, and who has for years had occasional attacks of dyspepsia and diarrhea. The motor power of the stomach is impaired,

and an atrophy of the gastric tubules has undoubtedly taken place; his debility is extreme, and there exists a high degree of oligocythemia with corresponding oligochromemia and poikilocytosis. There are microcytes and macrocytes, misshapen cells and nucleated cells, giant cells and dwarf cells. The treatment is perhaps less obscure than the causation: To begin with, muscular exercise should be forbidden. Absolute rest in bed is for some weeks imperative, and almost complete confinement to bed is advisable for a considerable period longer. General massage is an excellent adjuvant, and should be persistently employed. Inunctions of cod-liver oil, given once daily, have seemed to Dr. Pepper to improve nutrition, and they are being given to this patient.

The treatment, by dietary and by remedies, of the case in question was carried out along the following lines:

"The gastro-intestinal tract demands the most careful diet and treatment, and in these matters each case must be studied for itself. This man's diet consists of finely minced Hamburg steak delicately broiled, so that all the juices are retained, dry toast or stale bread, and hot milk with a little coffee in it. In the last few days he has seemed to enjoy eating, and he does not suffer from nausea. However the diet may be modified, it must be highly nourishing, given in small quantities and often. Hydrochloric acid is generally indicated, and this man is given a couple of drops after each meal. His bowels have been loose, and we have been washing out his colon daily with warm water and following this with an injection of a weak solution of silver nitrate. Were not his stomach so well-behaved with his present diet and treatment I should practice gastric lavage, and cases have been reported where striking results have followed this procedure.

"For the blood we have one drug that exerts over many of these cases a most marvelous influence—arsenic. Under its use some cases recover entirely; others improve greatly, only to relapse. The drug must be pushed to the limit of tolerance—10, 15, or even 20 drops of Fowler's solution thrice daily, guarded with a little opium to counteract the tendency toward diarrhea. You must watch carefully for constitutional signs of over-action, as puffiness under the eyes and gastro-intestinal irritation, and should these appear the dose must be reduced. An irritable stomach does not in itself contraindicate arsenic, as the stomach often improves under its influence. But should the drug aggravate the irritability of the stomach, it should be administered hypodermically. Iron rarely does good early in the treatment; when convalescence is well established it may be advantageously combined with the arsenic. Lately bone-marrow (of lambs and calves) has been tried in the form of glycerol extracts, in some cases with reported good results. In extreme cases the hypodermic injection of large amounts of normal saline solution, direct transfusion of blood, and the injection of defibrinated blood have all been resorted to in some reported cases to good advantage. Treatment must be persevered in for a long time after the blood has been brought back to a good condition; and the patient must be kept under the most careful dietetic and hygienic conditions, and guarded in every way against the all too frequent relapse. This man has been under treatment nearly a fortnight. He expresses himself as feeling better; his appetite has improved, he bears the large doses of arsenic well, and his blood has gained 7 per cent. in hemoglobin and 100,000 red cells over the estimation on admission."

Conservative Surgery at La Pitie—An Old Treatment Revived.—If the views of Dr. Paul Reclus are correct and borne out in the future history of hospital surgery, the days of the amputator are over. A recent clinical lecture by that well-known Parisian practitioner and professor repeats and emphasizes views that he has already given to the profession. He has already spoken upon the subject before the Congress of French Surgeons for 1895. The clinical lecture from which we are about to quote is given *in extenso* in the *Medical Week* for Nov. 22, as delivered by the author at the La Pitie Hospital, and may be considered to be the pronunciamento of a radical conservatism in surgery. Will it survive? Is the hot-water "embalming" process greater than the Catling? The former is a small part only of an enthusiastic presentment of these highly vital questions. Prof. Reclus says:

"Whatever the extent or gravity of the lesions, *I never, under any circumstances, amputate* the injured limb, but merely wrap it in antiseptic substances by a veritable embalming process, leaving nature to separate the dead from the living tissues. This method of treatment possesses the double advantage of being much less fatal than surgical exeresis, and of preserving for the use of the patient, if not the entire limb, at any rate a much larger part thereof than would be left after amputation.

"I should not have the courage, however, to advocate this uncompromisingly conservative treatment, were it not for the excellent effects of hot water, which I use freely. Briefly stated, my procedure in such cases is as follows: The patient, who is almost invariably in a state of collapse from the shock, pale, anemic and cold, is placed on the operating table, where he is wrapped in hot blankets, only the crushed limb being left exposed. The skin of the latter is shaved, all fatty substances are removed by the aid of ether, alcohol or potassium permanganate, and when this preliminary disinfection has been thoroughly done, the injured parts are carefully cleansed.

"The principal agent employed for this purpose is hot water from a cistern, placed at a sufficient height above the bed to insure a forcible jet. The temperature of the water should be between 60° and 62° C., but not higher; for, if it should reach 64° C., the heat would be sufficient to alter the albuminoid constituents of the tissues. This jet of hot water is made to irrigate all the injured surfaces, and to penetrate into all the hollows and under all the detached parts of the wound, without exception. This is the only way of removing all clots, and to wash away all foreign bodies, together with the microörganisms they may contain.

"The advantages of this application of hot water are threefold: In the first place, at this high temperature it is antiseptic. It not only removes such germs as may have entered the wound from contact with the clothing or ground, but it also neutralizes their effect. At 62° C. the development of microbes is checked. Miquel has shown that when 1 cubic centimeter of liquid was maintained for fifteen minutes at a temperature of 55° C., the number of bacilli contained therein fell from 3,500 to 33. Moreover, I mix with the water a small quantity of antiseptic substances, the potency of which, as is well known, is greatly increased by heat.

"In the second place, hot water is hemostatic. Oozing is arrested; the smaller veins and arterioles contract, vessels of a certain size continuing to bleed, however, unless the recoil of the coats and the retraction of the intima has resulted in the formation of an obstruction.

"In the third place, water of a higher temperature than 60° C. helps to compensate for the loss of heat resulting from the bleeding and especially from the traumatic shock. The dangerous hypothermia gradually gives way, and in the majority of cases under my observation I have found that when the patient left the operating table his temperature had already risen to normal, instead of being subnormal, as is the rule after an amputation has been performed for the purpose of remedying the effects of a traumatism. I need hardly insist upon the improvement in the prognosis under such conditions. When this irrigation has been done, it only remains to have recourse to the process of embalming which I have described in the paper referred to above."

Society Notes.

A REGULAR meeting of the Cuyahoga County Medical Society was held at Cleveland, Ohio, Dec. 5.——At the annual meeting of the Society of Medical Jurisprudence held in New York, Dec. 9, the following officers were elected: President, Edward F. Brush, M.D.; Vice-President, S. B. Livingstone; Corresponding Secretary, R. Safford Newton, M.D. ——The Northwestern Ohio Medical Association held its fifty-first semi-annual meeting in Findlay, Ohio, Dec. 12-13. The following officers were elected: President, Dr. Charles Graffe, Sandusky; Vice-President, Dr. Charles Slocombe, Defiance; Secretary, Dr. J. Parker Baker, Findlay; Assistant Secretary and Treasurer, Dr. T. M. Gehrett, Deshler. Defiance was chosen as the next place of meeting, Dec., 1896.

Hospital Notes.

THE MCDONALD MEMORIAL HOSPITAL OF NEW YORK CITY.—This is a new hospital for colored persons and others to be located on West Twenty-fifth Street, adjoining the Bethel

Church. The McDonald Memorial Hospital was incorporated about three months ago. It is named after the late Dr. McDonald, the most eminent colored physician of New York. The hospital will draw no radical line. Its services will be free to all, irrespective of race or creed. It is founded to bring advanced medical aid closer to the people. It will open with a free dispensary. When the necessary funds are available there will be a training school for colored nurses. It will depend for support chiefly upon the colored churches and the contributions of the white. Liberal donations have been promised toward the establishment and support of a well-equipped pharmacal department, and also of a surgical clinic with the kind of apparatus, etc., that is most essential to such an institution.

THE STATE HOSPITAL FOR THE INSANE IN KINGS COUNTY, NEW YORK.—Some changes have been made in the personnel of the New York hospitals for the insane. At the asylum in Flatbush, a ward of the city of Brooklyn, Dr. Robert M. Elliott, of Rochester, has been appointed by the State Board of Lunacy Commissioners as Medical Superintendent. The new appointee will hold the same relative position at Flatbush that Dr. Deering does, who is in local charge of St. Johnland. Dr. Sylvester, the General Superintendent, has been performing the dual functions at Flatbush for some years, and the creation of this new office will give him a better chance to look after both institutions. The new officer has been for five years an assistant at the hospitals at Rochester, and his present change is in the line of a promotion. Since the State took charge of the King's County insane, under the State Care Act, they have created this office of Medical Superintendent at Flatbush. Their first appointment was Dr. Thomas E. Branford, of the Hudson River State Hospital, but he speedily resigned after viewing the accommodations offered him.

THE MASONS have volunteered to furnish a room in the new city hospital at Binghamton, N. Y.——The directors of the Pittsburg Chamber of Commerce have unanimously adopted a resolution recommending that the municipal authorities adopt measures to provide isolated hospitals for contagious diseases.——The financial report of the Southern Indiana Hospital for the Insane shows that the cost of conducting the institution during the past year has been nearly $85,000. The Superintendent reports $15,000 expended out of the special appropriation for the construction of new buildings, with a balance of $15,000.——The third annual report of the Massillon, Ohio, State Hospital has been made. The total disbursements during the year were $64,446.17, and the report showed a balance of $194.56, Nov. 15, 1895. The trustees ask that $300,000 be placed at their disposal for the purpose of improvements and additional buildings.

Detroit Notes.

AT THE regular meeting of the Detroit Medical and Library Association Thursday, Dec. 8, Frederick Robbins read a paper on "The Use and Abuse of Urethral Injections." The author reported two recent cases of gonorrheal urethritis cured in less than ten days by wiping out the first ten inches of urethra with Ag No_3 gr. x-xx to the ounce, followed daily for five days with large douches of Hg $c\frac{1}{2}$ I–40000. He condemns the routine use of the syringe as unscientific, useless and dangerous, as it is only useful in the latter stages of an uncomplicated anterior urethritis. He emphasized the fact that the Ultzmann syringe is absolutely essential for treatment of many cases of posterior urethritis.

THE WAYNE COUNTY MEDICAL SOCIETY held a regular meeting Dec. 12. The subject, "Hypnotism," was presented by Cassius M. MacDonald in an interesting manner.

THE REPORT OF THE HEALTH OFFICE for week ending Dec. 14, 1895: Deaths under 5 years, 27; total, 75. Births: Male 36, female 37; total, 73. Contagious diseases for week ending Dec. 14, 1895—Diphtheria: Last report 30, new cases 6, recovered 14, died 15, now sick 40. Scarlet Fever: Last report 21, new cases 6, recovered 2, died none, now sick 25. Smallpox: Last report 1, new cases 2, recovered none, died none, now sick 3. Measles: Last report none, new case 1, recovered none, died 1, now sick none.

Cincinnati Notes.

MORTALITY REPORT FOR THE WEEK GIVES THE FOLLOWING:—Membranous croup 1, cholera infantum 1, diphtheria 3, typhoid fever 6, zymotic diseases 4, cancer 3, phthisis pulmonalis 14, other constitutional diseases 4, apoplexy 7, bronchitis 4, convulsions 5, gastritis 2, meningitis 3, nephritis 2, peritonitis 3, pneumonia 8, other local diseases 21, violence 7, under 5 years 27. Total 110. Rate per 1,000, 17.02. Corresponding week 1894, 137; 1893, 193; 1892, 113.

AT THE Academy of Medicine Dec. 9 Dr. E. W. Mitchell read an elaborate paper on "The Anemias," which was discussed by Drs. F. Southgate and N. Wolfstein.

DR. J. C. CULBERTSON has been elected Commander of the E. F. Noyes Post G. A. R., of this city.

THE ANNOUNCEMENT of the new Laura Memorial College appears with the following faculty: J. M. Withrow, Professor of Gynecology; J. L. Cleveland, Theory and Practice of Medicine; E. W. Walker, Surgery; G. F. Sudhoff, Histology; L. S. Colter, Obstetrics; E. M. Riley, Materia Medica; O. M. Sprague, Chemistry; S. E. Allen, Pathology and Bacteriology; G. W. Ryan, Orthopedic Surgery; Giles S. Mitchell, Diseases of Children; A. G. Drew, Dermatology; C. R. Holmes, Ophthalmology; J. E. Boylan, Laryngology; Chas. E. Everett, Medical Jurisprudence.

AN AMBULANCE service has been established in connection with the City Hospital. The Hospital Corps of the First Regiment of Infantry O. N. G., located at Cincinnati under Drs. F. W. Hendley, G. I. Cullen and Chas. H. Castle, has been granted the privilege of the patrol wagons for this service, and the members have volunteered their services in this line of work. Two members of the Corps are privileged to admission at the Cincinnati Hospital each night.

AN EPIDEMIC of typhoid fever is raging at Waddy, Ky. The scarcity and impurity of the water supply is thought to be the cause.

THE REPORT of the Columbus State Hospital shows a per capita cost of $138.69 in comparison with $144.91 of 1894. At the beginning of the year there were 652 male and 612 female patients on the rolls. There were admitted during the year 185 males and 152 females; death rate 5.25 per cent.

DR. W. D. HOGE, Dr. J. L. Hervey and several others were arrested at St. Clairsville, Ohio, charged with running the smallpox quarantine. They all live at Martin's Ferry, which is quarantined against and the accused, it is alleged, passed the lines by denying their place of residence.

BELLAIRE, OHIO, is now cut off by quarantine from West Wheeling, Bridgeport, Ætnaville and Martin's Ferry. Street cars have been stopped. There are about 25 cases of smallpox and a large number of suspects on hand.

Philadelphia Notes.

EXTIRPATION OF THE GASSERIAN GANGLION.—Dr. W. W. Keen, at the last meeting of the Philadelphia County Medical Society, presented two patients, upon each of whom he had performed Krause's operation for removal of the Gasserian ganglion for inveterate facial neuralgia; both were men, and represented the earliest and the latest of a series of six cases. The first one had been operated upon twenty-six months ago, the last one only nineteen days before, and each reported complete relief from the former attacks of pain. The chief points in the communication were: 1, the control of hemorrhage (by packing with gauze, deligation, etc.) with comparative ease, in a case of rupture of the middle meningeal artery at the foramen spinosum. He did not

favor preliminary ligation of the internal carotid artery on account of the possible ill effect upon the nutrition of the cerebrum and a tendency to softening which might result; 2, he especially dwelt upon the fact that the entire ganglion may be removed, a feat considered impossible even by so competent a critic as Hersley, until Krause showed that it could be done. Dr. Keen presented a specimen of the ganglion removed from the last case without mutilation, and showing the motor root. The latter is not to be found in the illustrations of specimens removed by Krause, accompanying his article in the recent issue of the *Archiv. für Klinische Chirurgie;* 3, the influence of the removal of the gland upon the nutrition of the chorea was shown by the tendency to ulceration after the operation. This could only be overcome by stitching the eyelids together, which expedient was successful in the last case. The mortality was small, only one death occurred in the six cases, and this was attributed to infection of the third case through an unaccustomed assistant. The superiority of extirpation over mere destruction of the ganglion was referred to.

Proposal to Establish a Pay Hospital for Contagious Diseases.—A committee has been appointed by the Philadelphia County Medical Society to formulate plans and to take such steps as will secure for this city sufficient accommodation for those patients suffering with diphtheria and scarlatina, and particularly for those who desire and will pay for special hospital quarters. The present Municipal Hospital has not sufficient accommodation for the present demands upon it, and no special rooms for paying patients. In all probability the Council will respond to the urgent demand and will authorize the construction of additional pavilions in connection with the present structure, instead of building a new hospital.

The Judson Daland Medical Society has been organized among the medical students of the University of Pennsylvania in conformity with the custom which has been introduced of late years into this time-honored institution of dividing up the medical classes into groups, in honor of individual members of the faculty.

The Medico-Chirurgical College has commenced work on its new clinical apmhitheater located between the main hospital building and the maternity. Beside the amphitheater, the structure will contain three private operating rooms—surgical, gynecologic and ophthalmologic—with a large and complete sterilizing apparatus. Provision will be made to flush the amphitheater after each day's demonstration or lecture, so as to insure surgical cleanliness. During the coming year, a new six-story laboratory building is to be erected at the corner of 17th and Cherry Streets, on ground recently purchased, and the institution is to establish its own electric-light plant.

Dr. A. F. A. King, of Washington, Professor of Obstetrics in the Columbian University, was the guest of the Philadelphia Medical Club, which gave him a reception at the Bellevue Hotel, Dec. 11. A large number of local representative physicians were present. The President of the Club, Dr. H. A. Hare, introduced Dr. King, who made a most appropriate and entertaining brief address, in which he indulged in some reminiscences of his student life in Philadelphia when the University was at 9th and Chestnut Streets, and Agnew and DaCosta lecturers in the Philadelphia School of Anatomy and the old Chestnut Street Quiz Association.

Diphtheria.—The number of cases of contagious diseases in the city reported since Oct. 1 are 957 of diphtheria, with 314 deaths. In spite of isolation and disinfection, the number of cases of diphtheria do not appear to be on the decline. Two cases of smallpox and one of typhus fever have also been reported.

By invitation of the Surgical Section of the College of Physicians and Surgeons, Dr. L. McLane Tiffany, Professor of Surgery in the University of Maryland, read a paper on Dec. 13, on "The Treatment of Compound Fractures of the Lower Extremity," and Dr. L. S. Pilcher, surgeon to the M. E. Hospital, Brooklyn, and editor of the *Annals of Surgery*, gave the results of his personal experience in the "Ambulant Treatment of Fractures." Dr. Edward S. Martin, of Philadelphia, made some remarks on "Fractures of the Leg Treated by the Ambulant Method," and Dr. Thos. F. Branson reported a "Case of Fracture of the Coronoid Process of the Ulna." The discussion was general, and was opened by Dr. John Ashhurst. A reception was tendered the guests of the evening at the residence of Dr. John B. Roberts, after the meeting adjourned.

Washington Notes.

Weekly Report of the Health Department.—The report of the Health Officer for the week ended Dec. 7 is as follows: Number of deaths (still-births not included), white 46, colored 40, total 86. Death rate per 1,000 per annum, white 12.8, colored 23.7, total 16.2. Death rate per annum corresponding week last year, 16.8. The death list last week was materially below the normal. A decline of nigh 20 per cent. in the number of deaths took place, as compared with the week before. From 107 the number fell to 86. The mortality from consumption went from 17 to 7, and from acute lung maladies from 26 to 11. Two deaths from typhoid fever occurred as against 4 by the last report. The prevalence of diseases of the brain and nervous organs stood at about the same degree as has been maintained for the last several weeks, while that from kidney disorders shows a fall of from 5 to 2 deaths. The dangerous contagious diseases present no tendency to assume epidemic form. Of the fatal cases of diphtheria reported, 2 were attended with serious complications. The annual death rate for the week was 16.2, while for the corresponding period of last year it was 16.8.

Alumni Association Election.—At the annual meeting of the Alumni Association of the Columbian University held on the 13th inst., Dr. Chas. W. Richardson was elected President for the ensuing year.

Inspection of Beef Postponed.—Secretary of Agriculture Morton has extended the time for the enforcement of the meat inspection law from Jan. 1, 1896, to March 1, 1896. Shippers who fear inspection of their meats should be looked upon with suspicion. Good meat can never be depreciated in value because of a proper certificate that it is from a healthy animal.

For the Home for Incurables.—The promoters of the endowment fund of the Washington Home for Incurables have adopted a novel scheme for raising money. Cards were sent out which will just receive a fifty-cent piece and hold it securely. These were sent to a great many residents, and although the fund is considerable already, it is the intention to make it so large that the institution may never be at a loss for money.

Surgeon-General Sternberg's Address.—Surgeon-General Geo. M. Sternberg, U. S. A., the retiring President of the Biological Society of Washington, at the annual meeting last week delivered a most instructive address on the subject: "The Practical Results of Bacteriologic Researches." His remarks were illustrated by lantern slides, showing the many phases of bacterial life.

Pathologic Laboratory for the Children's Hospital.—The pupils of Norwood Institute have raised the sum of $1,000 for the benefit of the Children's Hospital. The good work was done at the suggestion of Dr. S. S. Adams, one of the attending physicians of the hospital, who has decided the fund shall be devoted to the organization of a pathologic and bacteriologic laboratory for the institution.

Physicians to the Poor.—Dr. Charles N. Emmons has been appointed a physician to the poor. Dr. D. G. Lewis has been appointed in place of Dr. H. S. Goodall, whose appointment expires on the 15th instant. Dr. F. O. Roman has been appointed in place of Dr. C. V. Petteys, and Drs. J. R. Shands and G. L. B. Jarvis have been appointed to serve the poor during the absence of Drs. T. Clark and J. R. Devereux. Dr. G. W. Wood has been appointed in place of Dr. C. W. Bordsall, whose appointment has expired.

Benefit for the Children's Hospital.—The benefit for the Children's Hospital which will take place at the National Theater Tuesday afternoon next, is attracting a great deal of attention. The New National Theater School of Acting is the medium through which the benefit is given, and two plays are to be presented, the first being "My Wife's Dentist," and the second, "Broken Hearts."

TO REGULATE VETERINARY MEDICINE IN THE DISTRICT.—The Commissioners will shortly present to Congress for passage a bill regulating the practice of veterinary medicine and surgery in the District of Columbia. Dr. Robinson, representing the District Veterinary Medical Association, appeared before the Commissioners and presented a draft of a bill which had been agreed upon by that body, and which he urged be presented to Congress for enactment.

The bill provides for the appointment of a board of five examiners, who shall be members of the Veterinary Medical Association, the terms of office to be limited to three years. Meetings for the examination of applicants are to be held on the first Tuesday in January, April, July and October of each year. It further provides that all persons practicing veterinary medicine in the District shall apply to the board for a license, which the board may refuse, and may revoke a license for chronic and persistent inebriety, for advertising in such manner as to deceive or defraud the public or for failure to report any case of contagious disease required by law to be reported. The bill also provides that all persons receiving a license to practice veterinary medicine shall register at the health office. For practicing without a license the offender may be punished by a fine not exceeding $100 nor less than $50.

MEDICAL-DIRECTOR GIHON'S REPORT OF THE NAVAL HOSPITAL.—From the report of Dr. Gihon the following quotation is taken. The total number of cases treated at this hospital since its establishment, Oct. 1, 1896, is stated at 3,065, of which number 2,525 were discharged to duty, 314 were condemned by medical survey and 118 died. Over 82 per centum of the cases admitted into the hospital since its foundation have been returned to duty; 10 per centun have been invalided from the service by boards of medical survey for disabilities unfitting them for further duty, and less than 4 per centum have terminated fatally. Four of the typhoid cases originated at the old barracks at the marine headquarters, and two at the navy yard, one on board the Dolphin and the other on board the Dale.

MEDICAL SOCIETY OF THE DISTRICT.—At the meeting of the society held on the 11th instant, Dr. Burnett reported a case of intra-cranial tumor and presented the specimen. Dr. Beth reported a case of skin grafting for ectropion and presented the patient for examination. Dr. S. S. Adams reported a case of ulcerative endocarditis with specimens, with Dr. Reed's report on the bacteriologic experiments from the case. Dr. H. L. E. Johnson reported seven cases of abdominal sections (gynecological) and presented the specimens.

SURGEON-GENERAL TRYON'S REPORT—In the last annual report of the Surgeon-General to the Secretary of the Navy, he touches upon a most important questions: The sanitation of Government war vessels. He says: "Up to a very recent date no ship had ever been constructed in which the question of the health of the crew had been scientifically considered in the design itself, and there have been few after construction in which intelligent effort has been directed to the preservation of health. The great idea in all time has been to sweep the sea—to have dominion over the waters. For this purpose ships have been built as mere engines of war, and with but little consideration for the fact that the most indispensable mechanical instruments are men themselves. Ships were few, and represented much time and money; men were many, and could be easily replaced. And thus for hundreds of years much more anxiety was exhibited in preserving arms from rusting and cordage from rotting than in considerations affecting the health of crews."

REPORT OF THE SUPERINTENDENT OF CHARITIES.—From the valuable report of the Commissioner of Charities the following quotations are made: "As shown by the report of the sanitary officer to the superintendent of the metropolitan police, public patients were sent to the hospitals by that branch of the District service during the late fiscal year as follows: Freedman's Hospital, 936; Providence Hospital, 848; Hospital of the Washington Asylum, 292; Garfield Hospital, 255; Emergency Hospital, 121; Homeopathic Hospital, 97; Columbia Hospital, 66; Children's Hospital, 31, and 5 to the Sibley Hospital. Many patients in maternity cases are sent to Columbia and other hospitals from dispensaries. The Children's Hospital receives through the same channel, as well as from child-caring asylums. Accident cases are brought to the Emergency Hospital by its own ambulance service, and other medical establishments accept inmates coming by transportation, public or private, other than that of the sanitary office. The figures given above show a total of 2,751 cases sent to hospitals by the sanitary officer during the fiscal year ended June 30, 1895. During the succeeding quarter, the months of July, August and September, 1895, there were sent to the hospitals in the same manner 1,102 patients, or at the rate of 4,408 cases a year. The number exceeds that recorded during any previous quarter, and the fact shows that, even when no serious epidemic prevails, the hospital accommodations of Washington are no more than adequate to the demands upon them. During the summer and fall at all places of medical refuge, the usual accommodations were fully occupied, and it was necessary to improvise additional ones in order to meet the urgent demands for treatment of public patients. There were also a sufficient number of case of the minor infectious cases treated by make-shift isolation in the homes and improvised isolated quarters furnished by the medical charities to further enforce the necessity of final and sufficient action upon this long-postponed but vital subject.

EMERGENCY HOSPITAL EXAMINATIONS.—An examination will be held on the 20th inst. at the Central Dispensary and Emergency Hospital to fill three vacancies in the house staff.

THE PUBLIC SERVICES.

Army Changes. Official list of changes in the stations and duties of officers serving in the Medical Department, U. S. Army, from December 7, 1895, to December 13, 1895.

Capt. William P. Kendall, Asst. Surgeon, upon the expiration of his present leave of absence, is ordered to Ft. Sam Houston, Texas, for duty.

First Lieut. John S. Kulp, Asst. Surgeon, will, upon the expiration of his present leave of absence, be relieved from duty at Ft. Spokane, Washington, and ordered to Ft. Walla Walla, Washington, for duty.

Capt. William B. Banister, Asst. Surgeon, leave of absence granted is extended one month.

First Lieut. James M. Kennedy, Asst. Surgeon, leave of absence granted is extended two months.

Capt. Charles E. Woodruff, Asst. Surgeon, now on leave of absence, is ordered to proceed from Washington, D. C., to Ft. Snelling, Minn., and report for temporary duty without delay.

RETIREMENTS.

Major Richard S. Vickery, Surgeon, is retired from active service this date, Dec. 7, 1895.

Capt. Freeman V. Walker, Asst. Surgeon, is, by direction of the President, wholly retired from active service this date, Dec. 4, 1895.

Navy Changes. Changes in the Medical Corps of the U. S. Navy for the week ending December 14, 1895.

P. A. Surgeon G. T. Smith, detached from the "Ranger" and ordered to the "Adams."

Asst. Surgeon M. K. Johnson, ordered to the Naval Laboratory and Department of Instruction, New York.

Change of Address.

Brown, F. H., from Pythian Temple to Widdecomb Bldg, Grand Rapids Mich.

Eads, S. O., from Beaver Crossing, Neb., to Science Hill, Ky.

Kneedler, W. L., from Fort Mason to San Diego, Cal.

Kelly, W. D., from 7th and Wabasha Streets to Lowry Arcade, St. Paul, Minn.

LETTERS RECEIVED

Alta Pharmacal Co., St. Louis, Mo.; Alma Sanitarium Co., Alma, Mich.

Blackman, May S., Wales Center, N. Y.; Blodgett, F. J., New York, N. Y.; Baldwin, T., Quincy, Ill.

Christison, J. S., Chicago, Ill.; Clarke, Almon, National Home, Wis.; Cochran, Jerome, Montgomery, Ala.; Croft, Benj. P.; New York, N. Y.; Chambers, J. H., St. Louis, Mo.; Colwell, A. W., New York, N. Y.

Eads, S. O., Science Hill, Ky.; Edwards, John B., Milwaukee, Wis.

Freeman, Walter J., Philadelphia, Pa.

Gouley, J. W. S., New York, N. Y.; Gardner, R. W., New York, N. Y.; Globe Mfg. Co., The, Rattle Creek, Mich.

Howe, W. P., Oran, Mo.; Hicks, Wm. H., Newark, N. J.; Hooper, P. O., Little Rock, Ark.; Howe, Lucien, Buffalo, N. Y.; Hummel, A. L., Adv. Agency, New York, N. Y.

Izlar, R. P., Ocala, Fla.

Jenkins, J. F., Tecumseh, Mich.; Jelks, Jas. T., Hot Springs, Ark.; Johnson, H. L. E., Washington, D. C.

Kelly, Howard A., Baltimore, Md., (2); Kneedler, W. L., San Diego Cal.

Larkins, E. L., Terre Haute, Ind.; Lord & Thomas, Chicago, Ill.

Marion Sims College of Medicine, St. Louis, Mo.; Moffett, E. D., Indianapolis, Ind.; Morse, Lyman D., Adv. Agency, New York, N. Y.; Maltine Mfg. Co., The, New York, N. Y.; Merrick, M. B., Passaic, N. J.

Pharmaceutical Era, The, New York, N. Y.

Reed, R. Harvey, Columbus, Ohio; Rohé, Geo. H., Catonsville, Ind.; Reed, Chas. A. L., Cincinnati, Ohio; Rosser, C. M., Terrell, Texas; Revue Internationale, Paris, France.

Stearns, Frederick & Co., Detroit, Mich.; Schirmer, G., Chicago, Ill.; Schadle, J. E., St. Paul, Minn.; Schering & Glatz, New York, N. Y.; Surgeon-General, U. S. A., Washington, D. C.; Subscription News Co., Chicago, Ill.

Taylor, P. Richard, Louisville, Ky.; Tyree, J. S., Washington, D. C.

Vogeler, Adolf G., Chicago, Ill.

Wyckoff, R. M., Brooklyn, N. Y.; Woodbury, F., Philadelphia, Pa.

Zumo Pharmacal Co., St. Louis, Mo.